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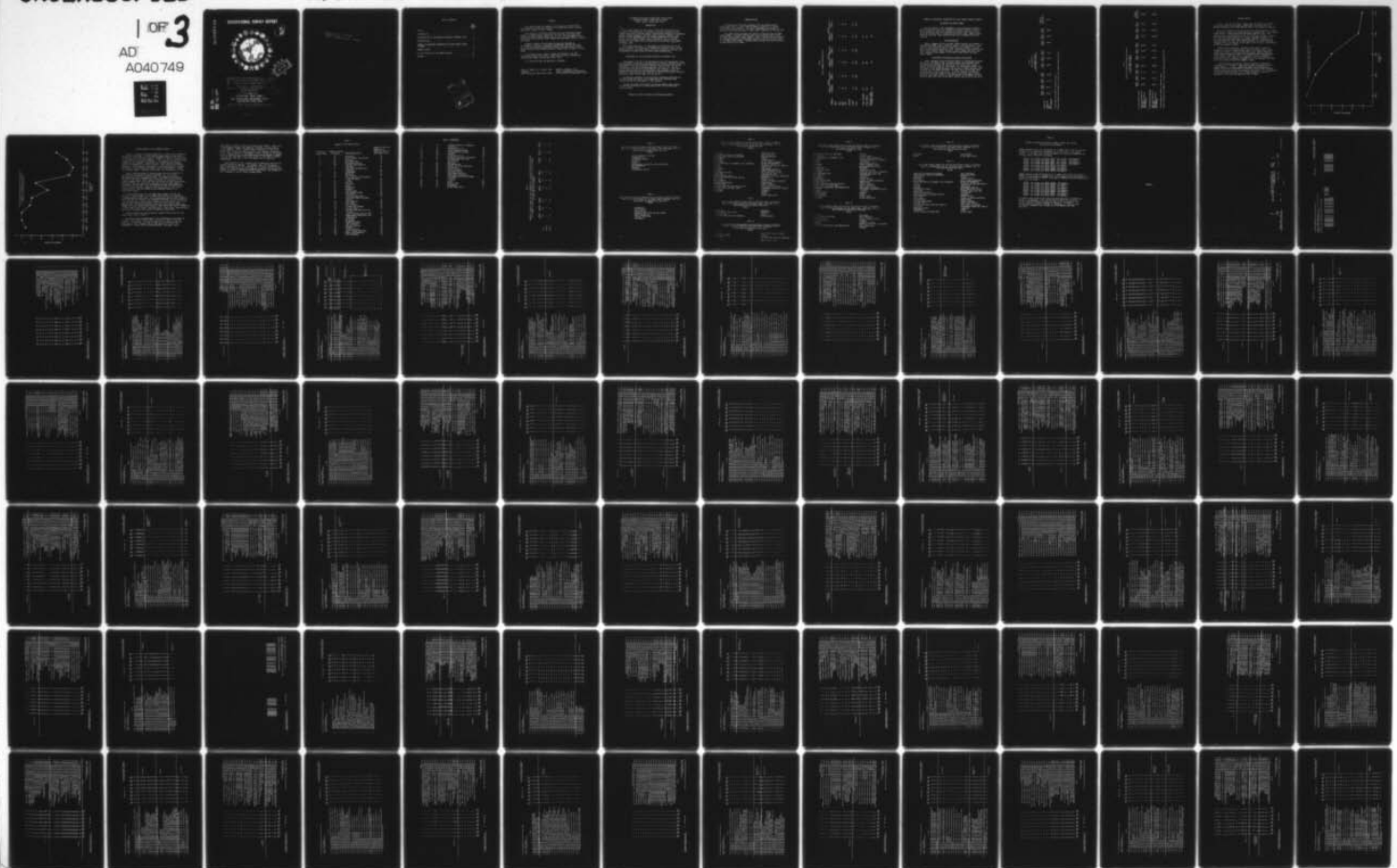
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ELECTRONICS PRINCIPLES OCCUPATIONAL SURVEY REPORT, INTEGRATED A--ETC(U)
DEC 76

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OCCUPATIONAL SURVEY REPORT



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ELECTRONICS PRINCIPLES OCCUPATIONAL SURVEY REPORT,
INTEGRATED AVIONIC SYSTEMS CAREER LADDER
AFSCS 326X2A, 326X2B AND 326X2C

19 AFPT-90-326-222 ✓

11 27 DECEMBER 1976

OCCUPATIONAL SURVEY BRANCH
USAF OCCUPATIONAL MEASUREMENT CENTER
LACKLAND AFB TEXAS 78236

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PREFACE

This report presents a summary of the results of a detailed Air Force Electronics Principles survey of the Integrated Avionics Systems specialties, 326X2A, B, and C shreds.

The Electronics Principles Inventory (EPI) was developed by Major Thomas J. O'Connor and Mr. Hendrick W. Ruck and the survey data were analyzed by Major O'Connor and Mr. Guy B. Cole. All are members of the Occupational Survey Branch, USAF Occupational Measurement Center, Lackland AFB, Texas.

Computer programs for analyzing the data were designed by Dr. Raymond E. Christal, Occupational and Manpower Research Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Project Analysis and Programming Branch, Computational Sciences Division, AFHRL.

Distribution of this report is made upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Survey Branch (OMY), Lackland AFB, Texas 78236.

This report has been reviewed and is approved.

JAMES A. TURNER, JR., Colonel, USAF
Commander
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ELECTRONICS PRINCIPLES OCCUPATIONAL SURVEY REPORT
INTEGRATED AVIONIC SYSTEMS CAREER LADDER
AFSCs 326X2A, 326X2B, AND 326X2C

INTRODUCTION

→ This report summarizes the results of the administration of the Electronics Principles survey to airmen assigned to Integrated Avionic Systems specialties including 326X2A, Inertial/Bomb Navigation, Fire/Weapons Control, Digital Computers, and Multi-sensor Displays; 326X2B, Flight Control, Flight Data Recorders, and Integrated/Mechanical Instrument Duties; and the 326X2C, Communications, Navigation, and ECM Systems. The data for this report were collected during the period 1 May through 30 August, 1976.

→ This report describes: (1) development and administration of the survey instrument; (2) summaries of background information which reflect the population of the survey sample; and (3) electronics principles used by personnel at various points in their career progression.

DEVELOPMENT OF THE ELECTRONICS PRINCIPLES INVENTORY (EPI)

Development of the EPI involved personnel from the Occupational Survey Branch working on the project who were well qualified in theoretical physics and electronics as well as having expertise in task analysis and survey development. Over 300 maintenance personnel from SAC, TAC, ADC, MAC, and AFCS participated in the development of the inventory. Electronics experts from the five ATC training centers, who averaged 12 years of maintenance experience and four years of electronics principles instruction experience, spent several weeks refining the EPI.

In addition, personnel at the Electrical Engineering Department of the USAF Academy and the Air Force Human Resources Laboratory were consulted during the development of the inventory.

The EPI contained 1,257 items in 62 subject matter areas covering all electronics principles training given at the five ATC technical training centers.

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ADMINISTRATION

The Electronics Principles Inventory (EPI) was administered in person and by mail to 1,097 airmen worldwide assigned to all shreds of the 326XX career ladders. This total represents approximately 31 percent of the airmen assigned to these career ladders as of 30 June 1976.

This report mainly presents the results of the data from the 326X2 career ladder. Two other separate reports have been written to cover the 326X0 and the 326X1 career ladders. Table 1 reflects the distribution of assigned personnel and percentage sampled in each of the three shreds of the 326X2 career ladder. Responses were received from over 25 percent of each shred of this ladder.

The EPI contained 1,257 items in 52 subject matter areas covering all electronics principles training given at the five ATC technical training centers. In addition, personnel at the Electrical Engineering Department of the USAF Academy and the Air Force Human Resources Laboratory were consulted during the development of the inventory. Experts from the five ATC training centers, who averaged 12 years of maintenance experience and four years of electronics principles instruction and AFCS participated in the development of the inventory. Electronics development. Over 300 maintenance personnel from SAC, TAC, ADC, MAC, and electronics as well as having expertise in task analysis and survey branch working on the project who were well qualified in theoretical physics development of the EPI involved personnel from the Occupational Survey.

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TABLE 1

326X2 COMMAND REPRESENTATION

COMMAND	326X2A		326X2B		326X2C	
	PERCENT OF ASSIGNED	PERCENT OF SAMPLE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
CONUS						
ATC	7	3	4	3	5	3
AFLC	1	-	-	-	-	-
SAC	14	16	11	13	16	16
AFSC	4	4	4	3	3	3
TAC	65	64	68	65	63	65
OVERSEAS						
USAFE	9	13	12	15	13	13
TOTAL	100%	100%	100%	100%	100%	100%
TOTAL ASSIGNED	574		427		510	
TOTAL SAMPLE	164		146		155	
PERCENT OF TOTAL ASSIGNED SAMPLED	29%		34%		30%	

SUMMARY OF BACKGROUND INFORMATION FOR 326X2 CAREER LADDER PERSONNEL

Assignment to Career Ladder

Over 60 percent of the respondents in each shred were assigned to their present specialty after completing resident technical training. Of the remainder, most were retrained from another specialty, with a few being reclassified or converted from another career ladder without technical training. None reported direct duty assignment from basic training.

Job Satisfaction

Table 2 compares Avionics Systems (326X2) personnel with members in the 326X0 and 326X1 career ladders in terms of job satisfaction. Also shown is data reflecting the job satisfaction of incumbents in other Air Force specialties surveyed in 1975. Personnel in the A shred of the 326X0, the D shred of 326X1, and the C shred of 326X2 find their jobs less interesting than members of the other shreds within the same career ladder.

Perceived Utilization of Talents and Training

Table 3 presents the perceived utilization of talents and training factors for the 326X0 shreds, the 326X1 shreds, and the 326X2 shreds. For comparison purposes, the average results from 35 other career ladders surveyed in 1975 are also given. The survey data reflect that 42 percent of the 326X0A personnel, 45 percent of 326X1D personnel, and 41 percent of the 326X2C personnel felt that their training was being utilized very little or not at all. A similar pattern is noted for these same AFSCs when comparing how their job utilizes their talents. A highly significant finding is that 63 percent of the 326X2C personnel perceive that their job utilizes their talents very little or not at all.

TABLE 2

JOB SATISFACTION

TOTAL SAMPLE BY SHRED
(PERCENT MEMBERS RESPONDING)

I FIND MY JOB:	TOTAL SAMPLE BY SHRED (PERCENT MEMBERS RESPONDING)										OTHER AF SPECIALTIES (N=21,107) **
	326X0A (N=36)	326X0B (N=70)	326X0C* (N=3)	326X0D (N=33)	326X1C (N=70)	326X1D (N=147)	326X1E (N=87)	326X2A (N=164)	326X2B (N=146)	326X2C (N=155)	
INTERESTING	59	80	67	70	74	54	71	59	57	35	69
SO-SO	22	7	-	9	10	23	18	21	20	26	15
DULL	19	13	33	18	16	23	11	19	21	39	16
NOT RESPONDING	-	-	-	3	-	-	-	1	2	-	-

* Survey sample too limited for significant results

** Based on responses from incumbents in 35 other career ladders surveyed during 1975.

TABLE 3
PERCEIVED UTILIZATION OF TALENTS AND TRAINING
TOTAL SAMPLE BY SHRED
(PERCENT MEMBERS RESPONDING)

	326X0A (N=36)	326X0B (N=70)	326X0C* (N=3)	326X0D (N=33)	326X1C (N=70)	326X1D (N=147)	326X1E (N=87)	326X2A (N=164)	326X2B (N=146)	326X2C (N=155)	OTHER AF SPECIALTIES (N=21,107) **
MY JOB UTILIZES MY TALENTS:											
VERY LITTLE OR NOT AT ALL	33	16	33	24	27	42	24	40	37	63	26
FAIRLY WELL	28	39	-	39	40	34	29	30	33	25	26
QUITE WELL TO PERFECTLY	39	45	67	37	33	22	46	30	29	12	48
NOT RESPONDING	-	-	-	-	-	2	1	-	1	-	-
MY JOB UTILIZES MY TRAINING:											
VERY LITTLE OR NOT AT ALL	42	16	33	30	33	45	25	25	27	41	26
FAIRLY WELL	17	33	-	33	33	33	33	38	38	39	26
QUITE WELL TO PERFECTLY	41	51	67	34	34	21	42	35	33	19	48
NOT RESPONDING	-	-	-	3	-	1	-	2	2	1	-

* Survey sample too limited for significant results

** Based on responses from incumbents in 35 other career ladders surveyed during 1975.

GENERAL RESULTS

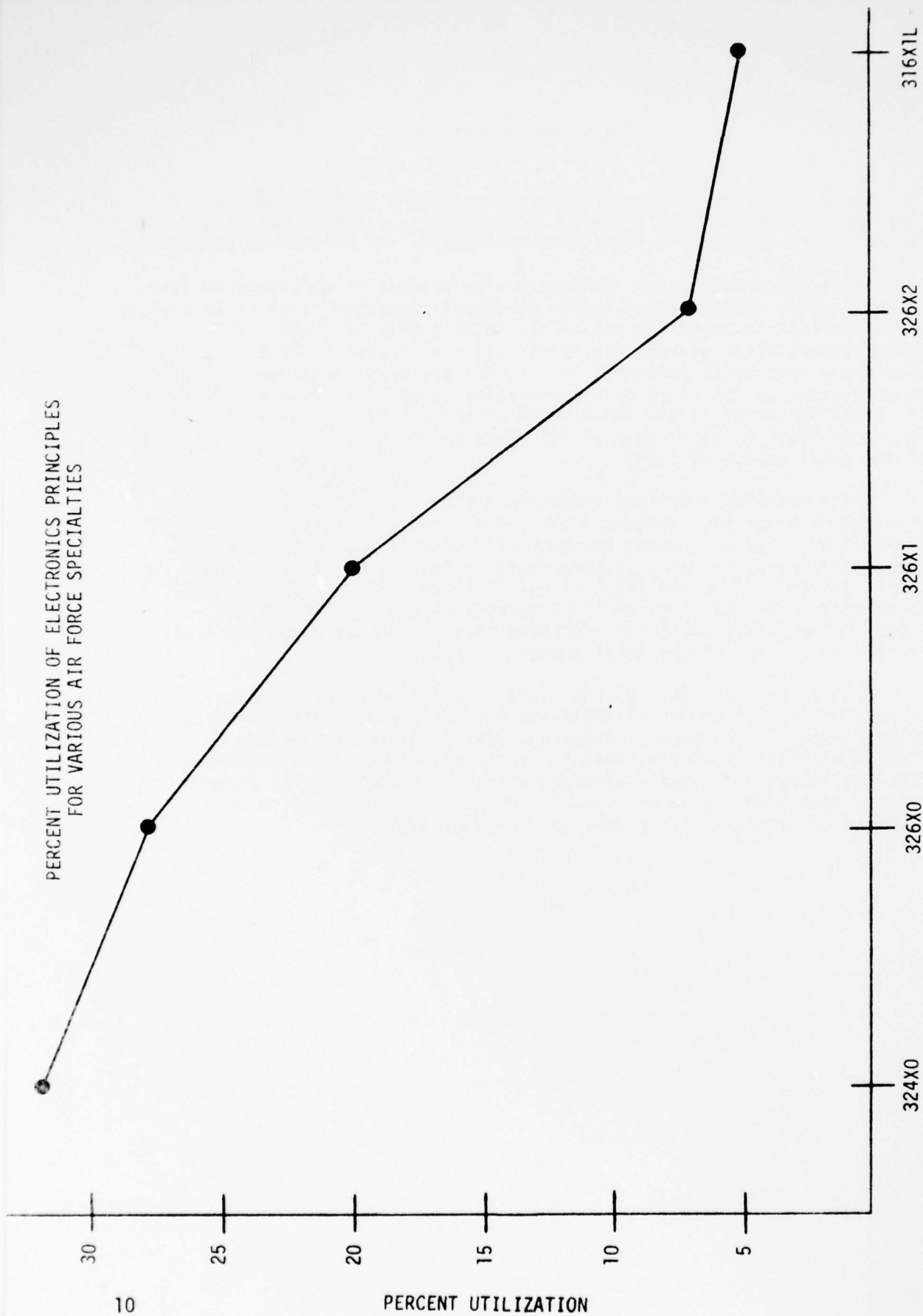
Figure 1 presents the overall results for the 326XX career ladders. Data for two other career ladders, 324X0 (PMEL) and 316X1L (Missile Systems Maintenance), are also shown on Figure 1 for comparison purposes.

There are a total of 1,257 electronics principles questions or items in the survey. 326X2 career ladder personnel responded "Yes" to an average of 83 items or to seven percent of the total number of items. The seven percent is an average figure for all the shreds of 326X2. Figure 1 also shows that 326X1 personnel (all shreds averaged) responded "Yes" to an average of 255 electronics principles items or to 20 percent of the total number of items, while 326X0 personnel (all shreds averaged) responded "Yes" to an average of 352 items in the survey or to 28 percent of the total number of items.

These results, therefore, indicate a wide range of usage of electronics principles between 326X0, 326X1, and 326X2 career ladders. In addition, Figure 1, shows how the 326XX career ladders compare in field utilization of basic electronics principles with the two other career ladders, 324X0 and 316X1L. AFS 324X0 personnel responded "Yes" to an average of 401 items or to 32 percent of the total number of items, while 316X1L personnel responded "Yes" to an average of 58 items or to five percent of the total number of items.

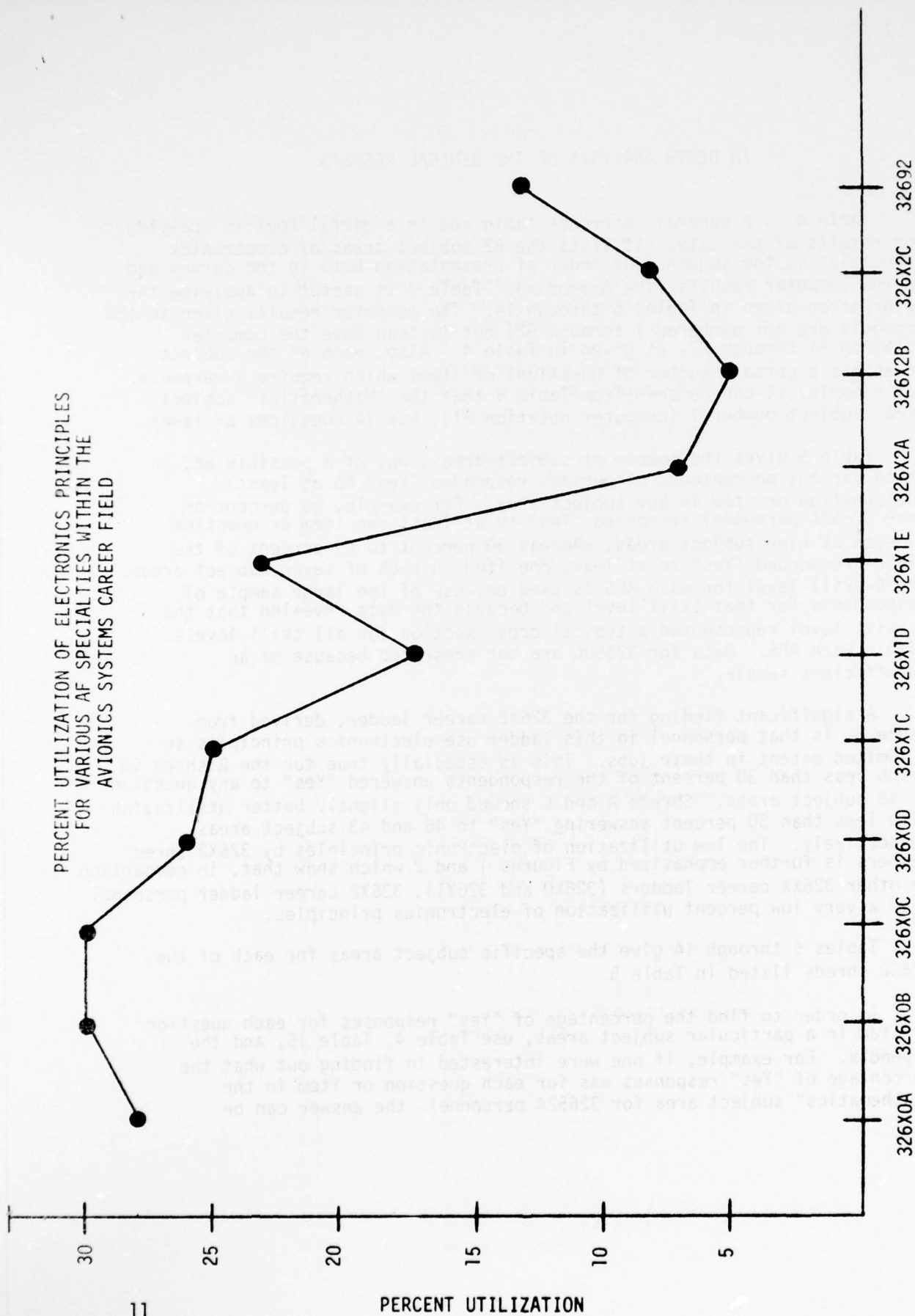
Figure two shows the percent field utilization of electronics principles for all shreds of 326XX and for 32692 (Integrated Avionics Superintendent). As shown, 326X0B and 326X0C personnel have the highest utilization of electronics principles, while 326X2C personnel show the lowest utilization of electronics principles. It is interesting to note that 32692 personnel show a higher percent utilization of electronics principles than does any shred of 326X2.

PERCENT UTILIZATION OF ELECTRONICS PRINCIPLES
FOR VARIOUS AIR FORCE SPECIALTIES



SPECIALTIES
FIGURE 1

PERCENT UTILIZATION OF ELECTRONICS PRINCIPLES
FOR VARIOUS AF SPECIALTIES WITHIN THE
AVIONICS SYSTEMS CAREER FIELD



SPECIALTIES
FIGURE 2

IN DEPTH ANALYSIS OF THE GENERAL RESULTS

Table 4 is a general reference table and is a useful tool in applying the results of the data. It lists the 62 subject areas of electronics principles in the sequence or order of presentation both in the survey and in the computer results (the Appendix). Table 4 is useful in applying the information given in Tables 6 through 14. The computer results given in the Appendix are not numbered 1 through 62, but instead have the computer notation A1 through U2, as given in Table 4. Also, each of the subject areas has a certain number of questions or items which require a response. For example, it can be seen from Table 4 that the "Mathematics" subject area, subject number 1 (computer notation A1), has 14 questions or items.

Table 5 gives the number of subject areas, out of a possible 62, in which various percentages of persons responded "Yes" to at least one question or item in any subject area. For example, 50 percent or more 32652A personnel responded "Yes" to at least one item or question in each of nine subject areas, whereas 30 percent to 49 percent of the 32652A responded "Yes" to at least one item in each of seven subject areas. The 5-skill level for each AFS is used because of the large sample of respondents for that skill level and because the data revealed that the 5-skill level represented a typical cross-section for all skill levels within each AFS. Data for 32650C are not presented because of an insufficient sample.

A significant finding for the 326X2 career ladder, derived from Table 5, is that personnel in this ladder use electronics principles to a limited extent in their jobs. This is especially true for the B shred in which less than 30 percent of the respondents answered "Yes" to any question in 48 subject areas. Shreds A and C showed only slightly better utilization with less than 30 percent answering "Yes" to 46 and 43 subject areas respectively. The low utilization of electronic principles by 326X2 shred members is further emphasized by Figures 1 and 2 which show that, in comparison to other 326XX career ladders (326X0 and 326X1), 326X2 career ladder personnel have a very low percent utilization of electronics principles.

Tables 6 through 14 give the specific subject areas for each of the 32652 shreds listed in Table 5.

In order to find the percentage of "Yes" responses for each question or item in a particular subject areas, use Table 4, Table 15, and the Appendix. For example, if one were interested in finding out what the percentage of "Yes" responses was for each question or item in the "Mathematics" subject area for 32652A personnel, the answer can be

determined by looking at Table 15 and seeing that 32652A is identified in the computer printout (the Appendix) as SPC044, a column heading in the Appendix. Table 4 indicates that "Mathematics" is the first subject area and has the computer printout (the Appendix) designation of A1. Thus, on page 4 of the Appendix, items 1 through 14 (designated as A1-01 through A1-14) are read under the column designated as SPC044. It can be seen from page 4 that seven percent of the sample of 32652A indicated that they have to "Find the square root of a quantity" (item A1-04).

Large patterns of "Yes" responses can be immediately determined by scanning through the Appendix. For example, page 6 of the Appendix shows a high pattern of "Yes" responses for all groups (SPC038 through SPC045) for items 60 through 65 or computer notation B1-09 through B2-05; whereas, for items 75 through 87 (B3-09 through B3-21), the pattern of "Yes" responses is low for SPC038 through SPC045.

TABLE 4

Summary of EPI Subject Areas

<u>Sequence of Subject Areas</u>	<u>Computer Printout Notation</u>	<u>Subject Area Title</u>	<u>Number of Possible Responses or Number of Items in each Subject Area</u>
1	A1	Mathematics	14
2	A2	Direct Current and Voltage	9
3	A3	Resistance	28
4	B1	Multimeter Uses	9
5	B2	Alternating Current	6
6	B3	Inductors and Inductive Reactance	25
7	C1	Capacitors and Capacitive Reactance	36
8	C2	Transformers	43
9	C3	Magnetism	14
10	D1	RCL Circuits	44
11	D2	Series and Parallel Resonance (Time Constants)	10
12	D3	Filters	22
13	E1	Coupling	12
14	E2	Soldering	22
15	E3	Relays	19
16	F1	Microphones	13
17	F2	Speakers	15
18	F3	Oscilloscopes	12
19	G1	Semiconductor Diodes	50
20	G2	Transistors	24
21	G3	Transistor Amplifiers	49
22	H1	Solid-State Special Purpose Devices	6
23	H2	Power Supplies	29
24	H3	Oscillators	27
25	I1	Multivibrators	16
26	I2	Limiters and Clampers	10
27	I3	Electron Tubes	44
28	J1	Electron Tube Amplifiers and Circuits	7
29	J2	Special Purpose Electron Tubes	16
30	J3	Heterodyning, Modulation, and Demodulation	6
31	K1	AM Systems	28
32	K2	FM Systems	19
33	K3	Numbering Systems	10
34	L1	Logic Functions	13
35	L2	Boolean Equations	25
36	L3	Counters	24
37	M1	Timing Circuits	12
38	M2	Use of Signal Generators	10
39	M3	Motors and Generators	29
40	N1	Meter Movements	10

TABLE 4 (CONTINUED)

41	N2	Saturable Reactors and Magnetic Amplifiers	16
42	N3	Waveshaping Circuits	11
43	O1	Single Sideband Systems	30
44	O2	Pulse Modulation Systems	39
45	O3	Antennas	39
46	P1	Transmission Lines	31
47	P2	Waveguides and Cavity Resonators	50
48	P3	Microwave Amplifiers and Oscillators	76
49	Q1	Registers	7
50	Q2	Storage Devices	9
51	Q3	Digital to Analog Converters	14
52	R1	Phantastrons	1
53	R2	Schmitt Triggers	3
54	R3	Cable Fabrication	2
55	S1	Input/Output Devices	3
56	S2	Photo Sensitive Devices	1
57	S3	Synchronous Vibrations (Chopper Circuits)	9
58	T1	Infrared	27
59	T2	Lasers	34
60	T3	Display Tubes	14
61	U1	Programming	21
62	U2	DB and Power Ratios	3

TABLE 5

NUMBER OF SUBJECT AREAS, OUT OF A POSSIBLE 62, IN WHICH A SPECIFIED PERCENT
OF PERSONS IN EACH AFSC (50% OR MORE, 30 TO 49%, OR 0 TO 29%) MARKED
AT LEAST ONE "YES" RESPONSE.

	<u>32650A</u>	<u>32650B</u>	<u>32650D</u>	<u>32651C</u>	<u>32651D</u>	<u>32651E</u>	<u>32652A</u>	<u>32652B</u>	<u>32652C</u>
50%+	36	39	34	30	20	33	9	8	15
30-49%	7	6	6	14	16	9	7	6	4
0-29%	19	17	22	18	26	20	46	48	43

TABLE 6

NINE SUBJECT AREAS WITH HIGH JOB UTILIZATION OF BASIC ELECTRONICS.
THAT IS, 50 PERCENT OR MORE OF THE SURVEY SAMPLE RESPONDED "YES" TO
ONE OR MORE QUESTIONS WITHIN EACH AREA.
32652A

DIRECT CURRENT AND VOLTAGE
MULTIMETER USES
ALTERNATING CURRENT
SOLDERING
RELAYS
HETERODYNING, MODULATION, AND DEMODULATION
METER MOVEMENTS
ANTENNAS
INPUT-OUTPUT DEVICES

TABLE 7

SEVEN SUBJECT AREAS WITH MODERATE JOB UTILIZATION OF BASIC ELECTRONICS.
THAT IS, 30 TO 49 PERCENT OF THE SURVEY SAMPLE RESPONDED "YES" TO
ONE OR MORE QUESTIONS WITHIN EACH AREA.
32652A

MATHEMATICS
OSCILLOSCOPES
POWER SUPPLIES
MICROWAVE AMPLIFIERS AND OSCILLATORS
CABLE FABRICATION
DISPLAY FABRICATION
PROGRAMMING

TABLE 8

FORTY-SIX SUBJECT AREAS WITH LOW JOB UTILIZATION OF BASIC ELECTRONICS.
THAT IS, 29 PERCENT OR LESS OF THE SURVEY SAMPLE RESPONDED "YES" TO
ANY QUESTION WITHIN EACH AREA.

32652A

RESISTANCE	NUMBERING SYSTEMS
INDUCTORS AND INDUCTIVE REACTANCE	LOGIC FUNCTIONS
CAPACITORS AND CAPACITIVE REACTANCE	BOOLEAN EQUATIONS
TRANSFORMERS	COUNTERS
MAGNETISM	TIMING CIRCUITS
RCL CIRCUITS	USE OF SIGNAL GENERATORS
SERIES AND PARALLEL RESONANCE (TIME CONSTANTS)	MOTORS AND GENERATORS
FILTERS	SATURABLE REACTORS AND MAGNETIC
COUPLING	AMPLIFIERS
MICROPHONES	WAPESHAPING CIRCUITS
SPEAKERS	SINGLE SIDEBAND SYSTEMS
SEMICONDUCTOR DIODES	PULSE MODULATION SYSTEMS
TRANSISTORS	TRANSMISSION LINES
TRANSISTOR AMPLIFIERS	WAVEGUIDES AND CAVITY RESONATORS
SOLID-STATE SPECIAL PURPOSE DEVICES	REGISTERS
OSCILLATORS	STORAGE DEVICES
MULTIVIBRATORS	DIGITAL TO ANALOG CONVERTERS
LIMITERS AND CLAMPERS	PHANTASTRONS
ELECTRON TUBES	SCHMITT TRIGGERS
ELECTRON TUBE AMPLIFIERS AND CIRCUITS	PHOTO SENSITIVE DEVICES
SPECIAL PURPOSE ELECTRON TUBES	SYNCHRONOUS VIBRATIONS (CHOPPER
AM SYSTEMS	CIRCUITS)
FM SYSTEMS	INFRARED
	LASERS
	DB AND POWER RATIOS

TABLE 9

EIGHT SUBJECT AREAS WITH HIGH JOB UTILIZATION OF BASIC ELECTRONICS.
THAT IS, 50 PERCENT OR MORE OF THE SURVEY SAMPLE RESPONDED "YES" TO
ONE OR MORE QUESTIONS WITHIN EACH AREA.

32652B

MATHEMATICS	MAGNETISM
DIRECT CURRENT AND VOLTAGE	SOLDERING
MULTIMETER USES	RELAYS
CAPACITORS AND CAPACITIVE REACTANCE	METER MOVEMENTS

TABLE 10

SIX SUBJECT AREAS WITH MODERATE JOB UTILIZATION OF BASIC ELECTRONICS.
THAT IS, 30 TO 49 PERCENT OF THE SURVEY SAMPLE RESPONDED "YES" TO
ONE OR MORE QUESTIONS WITHIN EACH AREA.

32652B

RESISTANCE	SOLID-STATE SPECIAL PURPOSE
ALTERNATING CURRENT	DEVICES
TRANSFORMERS	INDUCTORS AND INDUCTIVE REACTANCE
	INPUT-OUTPUT DEVICES

TABLE 11

FORTY-EIGHT SUBJECT AREAS WITH LOW JOB UTILIZATION OF BASIC ELECTRONICS.
THAT IS, 39 PERCENT OR LESS OF THE SURVEY SAMPLE RESPONDED "YES" TO
ANY QUESTION WITHIN EACH AREA.

32652B

INDUCTORS AND INDUCTIVE REACTANCE
RCL CIRCUITS
SERIES AND PARALLEL RESONANCE (TIME
CONSTANTS)
FILTERS
COUPLING
MICROPHONES
SPEAKERS
OSCILLOSCOPES
SEMICONDUCTOR DIODES
TRANSISTORS
TRANSISTOR AMPLIFIERS
POWER SUPPLIES
OSCILLATORS
MULTIVIBRATORS
LIMITERS AND CLAMPERS
ELECTRON TUBES
ELECTRON TUBE AMPLIFIERS AND CIRCUITS
SPECIAL PURPOSE ELECTRON TUBES
HETERODYNING, MODULATION, AND DEMODULATION
AM SYSTEMS
FM SYSTEMS
NUMBERING SYSTEMS
LOGIC FUNCTIONS
BOOLEAN EQUATIONS
PROGRAMMING

COUNTERS
TIMING CIRCUITS
USE OF SIGNAL GENERATORS
SATURABLE REACTORS AND MAGNETIC
AMPLIFIERS
WAVESHAPING CIRCUITS
SINGLE SIDEBAND SYSTEMS
PULSE MODULATION SYSTEMS
ANTENNAS
TRANSMISSION LINES
WAVEGUIDES AND CAVITY RESONATORS
MICROWAVE AMPLIFIERS AND
OSCILLATORS
REGISTERS
STORAGE DEVICES
DIGITAL TO ANALOG CONVERTERS
PHANTASTRONS
SCHMITT TRIGGERS
CABLES FABRICATION
PHOTO SENSITIVE DEVICES
SYNCHRONOUS VIBRATIONS (CHOPPER
CIRCUITS)
INFRARED
LASERS
DISPLAY TUBES
DB AND POWER RATIOS

TABLE 12

FIFTEEN SUBJECT AREAS WITH HIGH JOB UTILIZATION OF BASIC ELECTRONICS.
THAT IS, 50 PERCENT OR MORE OF THE SURVEY SAMPLE RESPONDED "YES" TO
ONE OR MORE QUESTIONS WITHIN EACH AREA.

362X2C

MATHEMATICS
DIRECT CURRENT AND VOLTAGE
MULTIMETER USES
ALTERNATING CURRENT
SOLDERING
MICROPHONES
HETERODYNING, MODULATION, AND DEMODULATION

AM SYSTEMS
METER MOVEMENTS
SINGLE SIDEBAND SYSTEMS
ANTENNAS
TRANSMISSION LINES
WAVEGUIDES AND CAVITY RESONATORS
CABLE FABRICATION
INFRARED

TABLE 13

FOUR SUBJECT AREAS WITH MODERATE JOB UTILIZATION OF BASIC ELECTRONICS.
THAT IS, 30 TO 49 PERCENT OF THE SURVEY SAMPLE RESPONDED "YES" TO
ONE OR MORE QUESTIONS WITHIN EACH AREA.

326X2C

RESISTANCE
RELAYS

OSCILLOSCOPES
DB AND POWER RATIOS

TABLE 14

FORTY-THREE SUBJECT AREAS WITH LOW JOB UTILIZATION OF BASIC ELECTRONICS.
THAT IS, 29 PERCENT OR LESS OF THE SURVEY SAMPLE RESPONDED "YES" TO
ANY QUESTION WITHIN EACH AREA.

326X2C

INDUCTORS AND INDUCTIVE REACTANCE
CAPACITORS AND CAPACITIVE REACTANCE
TRANSFORMERS
MAGNETISM
RCL CIRCUITS
SERIES AND PARALLEL RESONANCE (TIME CONSTANTS)
FILTERS
COUPLING
SPEAKERS
SEMICONDUCTOR DIODES
TRANSISTORS
TRANSISTOR AMPLIFIERS
SOLID-STATE SPECIAL PURPOSE DEVICES
POWER SUPPLIES
OSCILLATORS
MULTIVIBRATORS
LIMITERS AND CLAMPERS
ELECTRON TUBES
ELECTRON TUBE AMPLIFIERS AND CIRCUITS
FM SYSTEMS
NUMBERING SYSTEMS
PROGRAMMING
SPECIAL PURPOSE ELECTRON TUBES

LOGIC FUNCTIONS
BOOLEAN EQUATIONS
COUNTERS
TIMING CIRCUITS
USE OF SIGNAL GENERATORS
MOTORS AND GENERATORS
SATURABLE REACTORS AND MAGNETIC
AMPLIFIERS
WAVESHAPING CIRCUITS
PULSE MODULATION SYSTEMS
MICROWAVE AMPLIFIERS AND
OSCILLATORS
REGISTERS
STORAGE DEVICES
DIGITAL TO ANALOG CONVERTERS
PHANTASTRONS
SCHMITT TRIGGERS
INPUT-OUTPUT DEVICES
PHOTO SENSITIVE DEVICES
SYNCHRONOUS VIBRATIONS (CHOPPER
CIRCUITS)
LASERS
DISPLAY TUBES

TABLE 15

READING THE COMPUTER PRINTOUTS (GPSM3A, GPSM3B, AND JOBINV)
WHICH ARE IN THE APPENDIX

GPSM3A (Appendix pages four through 46) is a summary which gives the percent of members of a group which responded "Yes" to the items in the survey booklet. At the top of each column of numbers on any page of GPSM3A are the following Group Identifiers and Groups:

SPC038 - All airmen with DAFSC 326X2 (All shreds) (468 members)
 SPC039 - All airmen with DAFSC 32632 (All shreds) (53 members)
 SPC040 - All airmen with DAFSC 32652 (All shreds) (309 members)
 SPC041 - All airmen with DAFSC 32672 (All shreds) (106 members)
 SPC042 - All airmen with DAFSC 326X2A (164 members)
 SPC043 - All airmen with DAFSC 32632A (21 members)
 SPC044 - All airmen with DAFSC 32652A (109 members)
 SPC045 - All airmen with DAFSC 32672A (34 members)

GPSM3B (Appendix pages 49 through 91) is a summary which gives the percent of members of a group which responded "Yes" to the items in the survey booklet. At the top of each column of numbers on any page of GPSM3B are the following Group Identifiers and Groups:

SPC046 - All airmen with DAFSC 326X2B (146 members)
 SPC047 - All airmen with DAFSC 32632B (15 members)
 SPC048 - All airmen with DAFSC 32652B (97 members)
 SPC049 - All airmen with DAFSC 32672B (34 members)
 SPC050 - All airmen with DAFSC 326X2C (155 members)
 SPC051 - All airmen with DAFSC 32632C (16 members)
 SPC052 - All airmen with DAFSC 32652C (103 members)
 SPC053 - All airmen with DAFSC 32672C (36 members)

To conserve space, some of the items have been abbreviated in GPSM3A and GPSM3B in the Appendix. Each item has been listed in its entirety in the Job Inventory (JOBINV) beginning on page 92 of the Appendix. For example, Task A1-01, page 4, GPSM3A, is incomplete. In order to find the complete statement, turn to page 92 of the Appendix and read item A1-01.

APPENDIX

APPENDIX

TABLE OF CONTENTS

REPORT NUMBER	REPORT ID	REPORT TITLE	TOC PAGE	AF HUMAN RESOURCES LABORATORY AIR FORCE SYSTEMS COMMAND
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PCT MBR'S ANSWERING YES FOR 326X2 DAFSC GRPS

PERCENT MEMBERS ANSWERING 'YES' TO EPI ITEMS BY DAFSC
GROUPS IN THE 326X2 CAREER LADDER.

REPORTS ON THE FOLLOWING GROUPS WERE REQUESTED

GROUP IDENTITY = SPC038 ALL AMN 326X2	(ALL SHREDS)	CONTAINING	468 MEMBERS.
GROUP IDENTITY = SPC039 ALL AMN 32632	(ALL SHREDS)	CONTAINING	53 MEMBERS.
GROUP IDENTITY = SPC040 ALL AMN 32652	(ALL SHREDS)	CONTAINING	309 MEMBERS.
GROUP IDENTITY = SPC041 ALL AMN 32672	(ALL SHREDS)	CONTAINING	106 MEMBERS.
GROUP IDENTITY = SPC042 ALL AMN 326X2A		CONTAINING	164 MEMBERS.
GROUP IDENTITY = SPC043 ALL AMN 32632A		CONTAINING	21 MEMBERS.
GROUP IDENTITY = SPC044 ALL AMN 32652A		CONTAINING	109 MEMBERS.
GROUP IDENTITY = SPC045 ALL AMN 32672A		CONTAINING	34 MEMBERS.

PCT MBRS ANSWERING YES FOR 326X2 DAFSC GAPS

GPSM3A PAGE 3

AF HUMAN RESOURCES LABORATORY
AIR FORCE SYSTEMS COMMAND

DUTY GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DUTY	SPC 038	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
A MATHEMATICS, DIRECT CURRENT, VOLTAGE, AND RESISTANCE	95	94	96	93	93	95	94	88
B MULTIMETER USES, ALTERNATING CURRENT, INDUCTORS, AND INDUCTIVE CAPACITORS, CAPACITIVE REACTANCE, TRANSFORMERS, AND MAGNETISM	97	94	97	96	95	95	95	94
C RCL CIRCUITS, SERIES AND PARALLEL RESONANCE (TIME CONSTANTS), AND FILTERS	56	57	56	55	45	43	45	47
D COUPLING, SOLDERING, AND RELAYS	12	15	12	11	13	10	14	12
E MICROPHONES, SPEAKERS, AND OSCILLOSCOPES	87	74	69	87	76	57	78	82
F SEMICONDUCTOR DIODES, TRANSISTORS, AND TRANSISTOR AMPLIFIERS	46	36	45	52	41	29	40	50
G SOLID STATE SPECIAL PURPOSE DEVICES, POWER SUPPLIES, AND OSCILLATORS	16	15	15	21	15	14	13	21
H MULTIVIBRATORS, LIMITERS, CLAMPERS, AND ELECTRON TUBES	45	45	47	39	57	52	58	56
I ELECTRON TUBE AMPLIFIERS AND CIRCUITS, SPECIAL PURPOSE ELECTRON TUBES, HETERODYNING, MODULATION, AM SYSTEMS, FM SYSTEMS, AND NUMBERING SYSTEMS	6	4	5	9	8	5	7	12
J LOGIC FUNCTIONS, BOOLEAN EQUATIONS, AND COUNTERS	42	43	42	40	54	52	56	50
K TIMING CIRCUITS, USE OF SIGNAL GENERATORS, MOTORS, AND GENERATORS	46	47	49	52	38	43	37	41
L METER MOVEMENTS, SATURABLE REACTORS, MAGNETIC AMPLIFIERS, AND WAVESHAPING CIRCUITS	25	28	25	25	30	29	29	35
M SINGLE SIDEBAND SYSTEMS, PULSE MODULATION	32	43	30	30	31	33	28	38
N MAGNETIC AMPLIFIERS, AND WAVELENGTHS	74	70	75	72	72	57	75	71
O TRANSMISSION LINES, WAVEGUIDES AND CAVITY RESONATORS, AND MICROWAVE AMPLIFIERS AND OSCILLATORS	64	66	65	59	88	86	92	79
P DIGITAL TO ANALOG CONVERTERS	58	58	59	58	81	76	83	79
Q PHANTASTONS, SCHMITT TRIGGERS, AND CABLE FABRICATION	22	17	22	23	41	33	43	38
R INPUT/OUTPUT DEVICES, PHOTO SENSITIVE DEVICES, AND SYNCHRONOUS VIBRATIONS	45	36	42	57	41	24	41	50
S INFRARED, LASERS, AND DISPLAY TUBES	40	43	42	30	64	48	69	59
T PROGRAMMING, DB AND POWER RATIOS	43	42	44	42	48	43	49	50
U	26	28	27	22	41	33	44	38

TASK GROUP SUMMARY

DY-TSK

[illegible]

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	038	039	040	041	042	043	044	045	
A 33 A3-10 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE THE OHMIC VALUE OF RESISTANCE.	10	13	7	17	4	5	3	6	
A 34 A3-11 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE THE TOLERANCE OF RESISTORS.	8	11	6	14	3	5	3	3	
A 35 A3-12 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE THE FAILURE RATE OF RESISTORS.	3	6	2	3	0	0	0	0	
A 36 A3-13 DO YOU MAKE DECISIONS IN WHICH YOU MUST DETERMINE HOW TWO OR MORE BATTERIES MUST BE CONNECTED TOGETHER TO REPRESENT ANY OF THE FOLLOWING COMPONENTS: BATTERY,	4	4	3	8	1	0	0	6	
A 37 A3-14 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT ANY OF THE FOLLOWING COMPONENTS: BATTERY,	31	34	28	37	21	29	18	24	
A 38 A3-15 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES RESISTIVE CIRCUITS.	10	9	8	17	4	0	3	9	
A 39 A3-16 DO YOU CALCULATE TOTAL CURRENT FOR SERIES RESISTIVE CIRCUITS.	8	9	6	12	2	0	1	9	
A 40 A3-17 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES RESISTIVE CIRCUITS.	7	8	5	14	3	0	2	9	
A 41 A3-18 DO YOU CALCULATE POWER DISSIPATION FOR SERIES RESISTIVE CIRCUITS.	6	4	5	11	2	0	1	9	
A 42 A3-19 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES PARALLEL RESISTIVE CIRCUITS.	9	8	7	17	3	0	2	9	
A 43 A3-20 DO YOU CALCULATE TOTAL CURRENT FOR SERIES PARALLEL RESISTIVE CIRCUITS.	7	8	6	11	2	0	1	9	
A 44 A3-21 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES PARALLEL RESISTIVE CIRCUITS.	7	8	5	12	2	0	1	9	
A 45 A3-22 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR SERIES PARALLEL RESISTIVE CIRCUITS.	7	6	6	11	2	0	1	9	
A 46 A3-23 DO YOU CALCULATE POWER DISSIPATION FOR SERIES PARALLEL RESISTIVE CIRCUITS.	6	4	4	10	2	0	1	9	
A 47 A3-24 DO YOU CALCULATE TOTAL RESISTANCE FOR PARALLEL RESISTIVE CIRCUITS.	8	8	6	15	2	0	2	6	
A 48 A3-25 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RESISTIVE CIRCUITS.	6	8	5	10	2	0	1	6	
A 49 A3-26 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR PARALLEL RESISTIVE CIRCUITS.	6	8	4	11	2	0	1	6	
A 50 A3-27 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR PARALLEL RESISTIVE CIRCUITS.	6	6	4	10	2	0	1	6	
A 51 A3-28 DO YOU CALCULATE POWER DISSIPATION FOR PARALLEL RESISTIVE CIRCUITS.	4	4	3	9	2	0	1	6	
8 52 81-01 DO YOU MEASURE RESISTANCE.	88	87	89	86	84	81	83	85	
8 53 81-02 DO YOU REPAIR AN OHMMETER.	2	0	3	0	2	0	4	0	
8 54 81-03 DO YOU MEASURE VOLTAGE.	86	75	88	85	78	67	79	82	
8 55 81-04 DO YOU REPAIR A VOLTMEETER.	1	0	1	0	2	0	3	0	
8 56 81-05 DO YOU REPAIR AN AMMETER.	1	0	1	0	1	0	2	0	
8 57 81-06 DO YOU MEASURE CURRENT.	51	53	54	40	45	43	47	41	MULTIMETER USES
8 58 81-07 DO YOU USE A MULTIMETER.	87	74	40	85	60	71	80	85	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

Dy-75x

EXAMPLE OF A HIGH UTILIZATION AREA

EXAMPLE OF A LOW UTILIZATION AREA

[illegible]

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	038	039	040	041	042	043	044	045	
B 08 03-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT	3	2	2	4	2	5	2	3	
INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO									
B 09 03-23 DO YOU WORK WITH POWER INDUCTORS.	5	8	4	6	4	5	3	9	
B 90 03-24 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS.	2	6	1	4	3	5	2	6	
B 91 03-25 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS.	4	9	3	4	4	5	4	6	
C 92 01-01 DO YOU WORK WITH CAPACITORS OR CIRCUITS	26	28	27	25	10	5	10	12	
CONTAINING CAPACITORS ON YOUR PRESENT JOB.									
C 93 01-02 DO YOU INSPECT CAPACITORS.	16	21	16	15	2	0	2	3	
C 94 01-03 DO YOU CLEAN CAPACITORS.	6	8	6	5	2	0	2	3	
C 95 01-04 DO YOU ADJUST CAPACITORS.	7	13	6	8	2	0	1	6	
C 96 01-05 DO YOU TEST CAPACITORS.	17	21	17	15	2	0	1	6	
C 97 01-06 DO YOU DISCHARGE CAPACITORS.	3	6	3	3	2	0	1	6	
C 98 01-07 DO YOU REMOVE OR REPLACE CAPACITORS.	18	21	19	14	1	5	1	0	
C 99 01-08 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE.	5	2	6	4	1	0	1	0	
C 100 01-09 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS	1	0	1	0	0	0	0	0	
IN A DIELECTRIC.									
C 101 01-10 DO YOU USE OR REFER TO FARADS, MICROFARADS, OR	18	9	18	22	4	0	4	9	
PICOFARADS.									
C 102 01-11 DO YOU USE OR REFER TO CAPACITANCE.	23	21	22	25	7	5	5	15	
C 103 01-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT.	10	6	12	8	2	0	2	3	
C 104 01-13 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF	7	4	7	8	2	0	2	6	
CAPACITORS.									
C 105 01-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE.	9	4	9	10	4	0	4	6	
C 106 01-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES.	2	0	2	5	2	0	2	6	
C 107 01-16 THE CAPACITORS YOU WORK WITH IN DC CIRCUITS.	15	25	14	15	8	5	4	15	
C 108 01-17 THE CAPACITORS YOU WORK WITH ARE IN AC CIRCUITS.	22	19	22	23	9	5	7	15	
C 109 01-18 THE CAPACITORS YOU WORK WITH ARE IN CIRCUITS WITH	15	15	14	17	8	5	6	15	
BOTH DC AND AC.									
C 110 01-19 THE CAPACITORS YOU WORK WITH ARE DON'T REMEMBER	6	4	7	5	2	0	3	3	
WHICH CIRCUITS.									
C 111 01-20 DO YOU CALCULATE CAPACITANCE FOR A PARTICULAR	8	4	10	6	1	0	1	0	
CAPACITOR USING FORMULAS.									
C 112 01-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE	7	2	9	4	1	0	1	0	
CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL									
C 113 01-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE	4	2	5	4	1	0	1	0	
CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL									
C 114 01-23 DO YOU CALCULATE THE TOTAL CAPACITANCE OF	11	4	12	12	1	0	1	0	
CAPACITORS IN SERIES.									
C 115 01-24 DO YOU CALCULATE THE TOTAL CAPACITANCE OF	10	4	11	11	1	0	1	0	
CAPACITORS IN PARALLEL.									
C 116 01-25 DO YOU CALCULATE THE TOTAL CAPACITANCE OF	11	4	12	12	1	0	1	0	
CAPACITORS IN SERIES-PARALLEL CIRCUITS.									
C 117 01-26 DO YOU USE OR REFER TO THE GENERAL RULE THAT	9	6	8	10	2	0	2	3	
CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY									

CAPACITORS AND
CAPACITIVE REACTANCE

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC 038	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
C 118 C1-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS.	5	4	5	7	2	0	2	3
C 119 C1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO CAPACITIVE REACTANCE.	4	0	4	6	2	0	2	3
C 120 C1-29 DO YOU CALCULATE CAPACITIVE REACTANCE.	4	2	4	5	1	0	1	0
C 121 C1-30 DO YOU WORK WITH ROTOR-STATOR CAPACITORS (VARIABLE).	9	6	9	12	4	5	3	9
C 122 C1-31 DO YOU WORK WITH COMPRESSION (THINNER) CAPACITORS.	2	2	2	3	3	0	3	6
C 123 C1-32 DO YOU WORK WITH ELECTROLYTIC CAPACITORS (FIXED).	10	4	10	16	4	0	3	12
C 124 C1-33 DO YOU WORK WITH PAPER CAPACITORS (FIXED).	3	2	1	8	4	0	2	12
C 125 C1-34 DO YOU WORK WITH MICA CAPACITORS (FIXED).	3	2	2	9	4	0	2	12
C 126 C1-35 DO YOU WORK WITH CERAMIC CAPACITORS (FIXED).	4	6	2	8	5	5	3	12
C 127 C1-36 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF CAPACITORS.	6	11	9	3	4	5	5	3
C 128 C2-01 DO YOU WORK WITH TRANSFORMERS ON YOUR PRESENT JOB.	18	6	18	25	13	10	10	24
C 129 C2-02 DO YOU INSPECT TRANSFORMERS.	12	4	11	18	9	5	6	18
C 130 C2-03 DO YOU CLEAN TRANSFORMERS.	4	2	4	6	4	0	4	6
C 131 C2-04 DO YOU ADJUST TRANSFORMERS.	4	0	5	3	2	0	3	3
C 132 C2-05 DO YOU TROUBLESHOOT TRANSFORMERS.	18	8	17	25	14	10	11	26
C 133 C2-06 DO YOU REMOVE OR REPLACE COMPLETE TRANSFORMERS.	13	4	14	17	9	5	9	12
C 134 C2-07 DO YOU REMOVE OR REPLACE TRANSFORMER PARTS, SUCH AS THE PRIMARY WINDING.	0	0	0	0	1	0	1	0
C 135 C2-08 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION AND MUTUAL INDUCTANCE (M).	0	0	0	0	1	0	1	0
C 136 C2-09 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M.	0	0	0	0	1	0	1	0
C 137 C2-10 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS.	1	0	0	3	1	0	1	3
C 138 C2-11 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS.	2	0	2	5	1	0	1	3
C 139 C2-12 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS.	1	0	1	3	1	0	1	0
C 140 C2-13 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS.	0	0	0	1	1	0	1	0
C 141 C2-14 DO YOU WORK WITH AUTOTRANSFORMERS.	6	2	5	11	4	5	1	12
C 142 C2-15 DO YOU WORK WITH POWER TRANSFORMERS.	14	4	13	22	10	10	6	24
C 143 C2-16 DO YOU WORK WITH AUDIO TRANSFORMERS.	3	0	2	7	2	0	1	9
C 144 C2-17 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS.	3	0	2	7	3	0	1	12
C 145 C2-18 DO YOU WORK WITH DON'T REMEMBER WHAT TYPE OF TRANSFORMER.	5	2	5	7	4	0	4	6
C 146 C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE.	15	6	14	22	13	10	9	26
C 147 C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE.	15	6	14	23	13	10	9	26
C 148 C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES.	14	6	13	20	10	10	6	24
C 149 C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR	2	0	2	4	1	0	1	3

TRANSFORMERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	038	039	040	041	042	043	044	045		
C 150 C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN?	6	0	6	10	4	0	3	12		
C 151 C2-24 DO YOU REFER TO THE BASIC TRANSFORMER SCHEMATIC SYMBOLS FOR TRANSFORMERS?	16	4	15	25	12	10	8	24		
C 152 C2-25 DO YOU REFER TO THE MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS?	10	2	9	17	9	5	5	24		
C 153 C2-26 DO YOU REFER TO THE MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	12	2	11	20	9	5	6	24		
C 154 C2-27 DO YOU REFER TO THE CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS?	13	2	12	21	10	5	6	26		
C 155 C2-28 DO YOU REFER TO THE AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	4	0	6	9	4	0	2	12		
C 156 C2-29 DO YOU REFER TO THE IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	8	2	8	11	5	5	3	12		
C 157 C2-30 DO YOU REFER TO THE COMBINATIONS OF THE ABOVE SCHEMATIC SYMBOLS FOR TRANSFORMERS?	11	4	9	18	7	5	2	24		
C 158 C2-31 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING TRANSFORMERS YOU WORK WITH?	6	0	4	13	4	0	2	15		
C 159 C2-32 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS?	2	0	1	6	2	0	1	9		
C 160 C2-33 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO?	3	0	2	8	2	0	1	9		
C 161 C2-34 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS?	6	0	5	13	4	0	2	12		
C 162 C2-35 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	2	0	3	3	1	0	1	3		
C 163 C2-36 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS?	1	0	1	3	1	0	1	3		
C 164 C2-37 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH 3 PHASE TRANSFORMERS?	7	6	5	12	9	5	6	18		
C 165 C2-38 DO YOU INSPECT 3 PHASE TRANSFORMERS?	2	0	1	7	2	0	1	6		
C 166 C2-39 DO YOU CLEAN OR LUBRICATE 3 PHASE TRANSFORMERS?	0	0	0	0	1	0	1	0		
C 167 C2-40 DO YOU ADJUST 3 PHASE TRANSFORMERS?	1	0	2	1	0	1	3	3		
C 168 C2-41 DO YOU TROUBLESHOOT 3 PHASE TRANSFORMERS?	4	2	3	8	5	5	9	9		
C 169 C2-42 DO YOU REMOVE OR REPLACE COMPLETE 3 PHASE TRANSFORMER PARTS, SUCH AS A WINDING?	2	0	2	4	1	0	1	3		
C 170 C2-43 DO YOU REMOVE OR REPLACE 3 PHASE TRANSFORMER PARTS, SUCH AS A WINDING?	0	0	0	0	1	0	1	0		
C 171 C3-01 DO YOU USE OR REFER TO PERMANENT MAGNETS?	19	9	21	17	10	5	13	6		
C 172 C3-02 DO YOU USE OR REFER TO TEMPORARY MAGNETS?	12	8	14	10	7	5	7	6		
C 173 C3-03 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS?	7	0	8	10	3	0	4	3		
C 174 C3-04 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS?	7	4	8	8	3	0	5	0		

MAGNETISM

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-TSK

DY-TSK		SPC 038	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
C 175	C3-05 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS.	7	0	8	8	2	0	3	3
C 176	C3-06 DO YOU USE OR REFER TO RESIDUAL MAGNETISM.	9	8	8	10	3	0	4	3
C 177	C3-07 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX.	32	25	34	30	24	24	24	26
C 178	C3-08 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM.	3	0	3	3	1	0	1	0
C 179	C3-09 DO YOU USE OR REFER TO THE DOMAIN THEORY OF MAGNETISM.	3	0	2	5	1	0	1	0
C 180	C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION.	18	11	18	23	10	10	7	18
C 181	C3-11 DO YOU USE OR REFER TO FLUX DENSITY.	14	9	14	15	13	14	11	18
C 182	C3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT FOR MAGNETIC POLES, LIKE POLES REPEL AND UNLIKE POLES ATTRACT.	24	23	25	23	18	19	19	12
C 183	C3-13 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE DIRECTION OF MAGNETIC FIELDS ABOUT STRAIGHT WIRES.	9	11	10	7	9	14	9	3
C 184	C3-14 DO YOU USE THE LEFT THUMB RULE TO FIND THE NORTH POLE OF A CURRENT CARRYING COIL.	3	8	7	4	3	10	8	0
C 185	D1-01 DO YOU WORK WITH RC, LR, OR RCL CIRCUITS ON YOUR PRESENT JOB.	3	4	2	5	4	5	3	9
C 186	D1-02 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS.	1	2	1	2	3	5	3	3
C 187	D1-03 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS.	1	0	1	1	1	0	2	0
C 188	D1-04 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS.	1	2	1	4	4	5	2	9
C 189	D1-05 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS.	1	0	1	4	3	0	2	9
C 190	D1-06 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL CIRCUITS.	1	0	1	4	3	0	2	9
C 191	D1-07 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS.	2	4	1	3	3	5	2	6
C 192	D1-08 DO YOU USE OR REFER TO TRUE POWER (PT) WHEN WORKING WITH RCL CIRCUITS.	1	0	0	3	2	0	1	6
C 193	D1-09 DO YOU USE OR REFER TO MAXIMUM POWER (PM) WHEN WORKING WITH RCL CIRCUITS.	1	0	1	2	2	0	2	3
C 194	D1-10 DO YOU USE OR REFER TO AVERAGE POWER (PAVE) WHEN WORKING WITH RCL CIRCUITS.	1	0	1	3	2	0	2	6
C 195	D1-11 DO YOU USE OR REFER TO APPARENT POWER (PA) WHEN WORKING WITH RCL CIRCUITS.	1	0	1	2	2	0	2	3
C 196	D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS.	1	0	1	2	2	0	2	3
C 197	D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH RCL CIRCUITS.	2	2	1	3	3	5	2	6
C 198	D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS.	2	2	2	4	4	5	3	9
C 199	D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH RCL CIRCUITS.	2	2	2	3	4	5	3	6

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC 036	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
D 200 D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS.	3	2	2	4	4	5	3	9
D 201 D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS.	1	0	0	2	1	0	0	3
D 202 D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS.	1	2	0	3	2	5	0	6
D 203 D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS.	1	0	1	2	1	0	1	3
D 204 D1-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS.	1	2	1	3	2	5	1	3
D 205 D1-21 DO YOU DETERMINE VALUES OF TRIGONOMETRIC FUNCTIONS USING FORMULAS: SINE OF AN ANGLE, A OPPOSITE SIDE VECTOR DIAGRAMS FOR CIRCUITS.	1	0	1	2	2	0	2	3
D 206 D1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS.	1	0	1	0	2	0	3	0
D 207 D1-23 DO YOU CALCULATE TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS.	1	2	1	1	1	5	1	0
D 208 D1-24 DO YOU CALCULATE PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS.	0	0	1	0	1	0	1	0
D 209 D1-25 DO YOU CALCULATE TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS.	0	0	1	0	1	0	1	0
D 210 D1-26 DO YOU CALCULATE IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS.	0	0	1	0	1	0	1	0
D 211 D1-27 DO YOU CALCULATE APPARENT POWER (PA) FOR SERIES RCL CIRCUITS.	0	0	0	1	1	0	1	0
D 212 D1-28 DO YOU CALCULATE TRUE POWER (PT) FOR SERIES RCL CIRCUITS.	0	0	0	1	1	0	1	0
D 213 D1-29 DO YOU CALCULATE POWER FACTORS (PF) FOR SERIES RCL CIRCUITS.	0	0	0	1	1	0	1	0
D 214 D1-30 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RCL CIRCUITS.	0	0	0	1	1	0	1	0
D 215 D1-31 DO YOU CALCULATE IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS.	0	0	0	1	1	0	1	0
D 216 D1-32 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING THE ASSUMED VOLTAGE METHOD.	0	0	1	0	1	0	1	0
D 217 D1-33 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING OHM'S LAW.	0	0	0	0	1	0	1	0
D 218 D1-34 DO YOU CHECK CAPACITORS USING OHMMETERS.	3	2	3	4	4	5	4	6
D 219 D1-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION.	1	0	1	2	1	0	1	3
D 220 D1-36 DO YOU CHECK INDUCTORS USING OHMMETERS.	2	2	2	3	2	5	2	3
D 221 D1-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION.	0	0	1	0	1	0	1	0
D 222 D1-38 DO YOU USE OR REFER TO THE GENERAL RULE THAT TETRAPOLE, PE=1, AND PA=PT FOR RESONANT CIRCUITS.	0	0	0	0	0	0	0	0
D 223 D1-39 DO YOU CALCULATE RESONANT FREQUENCIES FOR RCL CIRCUITS.	0	0	1	0	1	0	1	0
D 224 D1-40 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE	1	2	1	1	1	5	1	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

SPC SPC SPC SPC SPC SPC SPC SPC SPC SPC
038 039 040 041 042 043 044 045

0Y-T5K

- 0 225 D1-41 DO YOU USE OR REFER TO THE GENERAL RULE THAT
LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT
0 226 D1-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT
HALF POWER POINTS ARE AT 70.7 PERCENT OF THE PEAK
0 227 D1-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT
BANDWIDTH IS INVERSELY PROPORTIONAL TO Q.
0 228 D1-44 DO YOU DETERMINE HOW CHANGES IN FREQUENCY,
RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT
0 229 D2-01 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR
REFER TO SERIES OR PARALLEL RESONANCE CIRCUITS OR
0 230 D2-02 DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS.
0 231 D2-03 DO YOU WORK WITH, USE, OR REFER TO AVAILABLE
VOLTAGE.
0 232 D2-04 DO YOU WORK WITH, USE, OR REFER TO TRANSIENT
INTERVALS.
0 233 D2-05 DO YOU USE OR REFER TO THE GENERAL RULE THAT A
CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE
0 234 D2-06 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT
CHARTS.
0 235 D2-07 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE
CIRCUITS CURRENT OR COMPONENT VOLTAGES AFTER A
0 236 D2-08 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE
THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT
0 237 D2-09 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE
COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND
0 238 D2-10 DO YOU USE OR REFER TO THE GENERAL RULE THAT
CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE ON
0 239 D3-01 DO YOU WORK WITH CIRCUITS USED AS FILTERS ON
YOUR PRESENT JOB.
0 240 D3-02 DO YOU INSPECT FILTER CIRCUITS.
0 241 D3-03 DO YOU CLEAN FILTER CIRCUITS.
0 242 D3-04 DO YOU ALIGN OR ADJUST FILTER CIRCUITS.
0 243 D3-05 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT.
0 244 D3-06 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER
CIRCUITS.
0 245 D3-07 DO YOU REMOVE OR REPLACE THE COMPLETE FILTER
CIRCUIT.

SERIES AND
PARALLEL RESONANCE
(TIME CONSTANTS)

FILTERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK	SPC											
	038	039	040	041	042	043	044	045	046	047	048	049
E 273 E2-01 ON YOUR PRESENT JOB DO YOU PERFORM SOLDERING TECHNIQUES OR INSPECT OR EVALUATE SOLDERED CONNECTIONS.	71	62	75	64	56	36	61	53				
E 274 E2-02 DO YOU SELECT TYPE OF SOLDER TO USE.	52	51	52	52	39	24	40	44				
E 275 E2-03 DO YOU ADD FLUX TO CONNECTIONS.	42	42	42	43	29	24	29	29				
E 276 E2-04 DO YOU CLEAN CONNECTIONS USING SOLVENTS.	37	38	35	43	28	19	26	41				
E 277 E2-05 DO YOU STRIP INSULATION FROM WIRES.	73	60	78	64	60	38	66	56				
E 278 E2-06 DO YOU CONNECT OR DISCONNECT HEAT SINKS.	34	36	32	37	25	29	25	24				
E 279 E2-07 DO YOU BEND OR SHAPE WIRES OR LEADS.	64	55	67	61	51	29	55	50				
E 280 E2-08 DO YOU CUT WIRES.	73	62	78	65	60	43	64	59				
E 281 E2-09 DO YOU FILE OR SHAPE SOLDERING IRON TIPS.	47	36	46	55	34	19	33	44				
E 282 E2-10 DO YOU TIN SOLDERING IRON TIPS.	58	47	60	60	41	24	41	50				
E 283 E2-11 DO YOU CLEAN SOLDERING IRON TIPS.	63	53	65	63	49	24	52	56				
E 284 E2-12 DO YOU CLEAN ELECTRICAL SURFACES USING ERASERS.	22	21	19	32	18	5	15	35				
E 285 E2-13 DO YOU TIN OR PRE-TIN CONDUCTORS.	51	47	51	56	35	19	35	47				
E 286 E2-14 DO YOU INSPECT SOLDERED CONNECTIONS.	68	57	72	64	52	38	54	53				
E 287 E2-15 DO YOU DESOLDER CONNECTIONS BY WICKING.	22	25	25	14	15	5	16	21				
E 288 E2-16 DO YOU DESOLDER CONNECTIONS USING VACUUM DESOLDERING TOOLS.	16	11	15	22	11	10	9	18				
E 289 E2-17 DO YOU CUT COMPONENT LEADS TO REMOVE COMPONENTS.	24	17	25	27	17	14	17	21				
E 290 E2-18 DO YOU CRUSH COMPONENTS FOR REMOVAL.	6	4	6	6	3	0	3	6				
E 291 E2-19 DO YOU MAKE HARDWIRE CONNECTIONS.	57	58	58	55	49	33	52	50				
E 292 E2-20 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS	1	2	1	1	1	0	1	0				
E 293 E2-21 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS ON PRINTED CIRCUIT BOARDS	1	0	1	3	1	0	1	3				
E 294 E2-22 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS ON PRINTED CIRCUIT BOARDS	1	4	1	2	1	0	1	0				
E 295 E3-01 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB	57	43	59	60	52	14	56	65				
E 296 E3-02 DO YOU ADJUST RELAYS	4	9	4	1	3	10	3	0				
E 297 E3-03 DO YOU CLEAN RELAYS	7	8	7	8	9	5	9	12				
E 298 E3-04 DO YOU INSPECT RELAYS	26	23	25	29	20	5	20	29				
E 299 E3-05 DO YOU REMOVE OR REPLACE COMPLETE RELAYS	53	38	53	58	46	19	49	56				
E 300 E3-06 DO YOU REMOVE OR REPLACE PARTS OR RELAYS	3	8	3	2	4	5	5	0				
E 301 E3-07 DO YOU TROUBLESHOOT RELAYS	54	49	53	60	48	24	48	62				
E 302 E3-08 DO YOU STRAIGHTEN RELAY CONTACTS	15	9	15	17	15	5	15	24				
E 303 E3-09 DO YOU PERFORM TASKS ON RELAY CONTACTS	6	8	6	5	4	5	5	3				
E 304 E3-10 DO YOU PERFORM TASKS ON RELAY COILS	1	6	0	0	1	5	1	0				
E 305 E3-11 DO YOU PERFORM TASKS ON RELAY COILS	1	6	1	1	2	5	1	3				
E 306 E3-12 DO YOU PERFORM TASKS ON RELAY ARMATURES	0	2	0	0	1	5	1	0				
E 307 E3-13 DO YOU PERFORM TASKS ON RELAY SPRINGS	1	2	1	1	2	5	2	0				
E 308 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS	38	32	36	48	38	24	37	50				
E 309 E3-15 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS	34	34	35	51	37	24	35	53				
E 310 E3-16 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS	34	32	35	47	38	24	38	50				
E 311 E3-17 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS	37	30	35	49	38	24	36	53				

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	038	039	040	041	042	043	044	045	
E J12 E3-18 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS SCHEMATIC	30	26	34	56	37	24	33	56	
E J13 E3-19 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY	31	32	28	41	26	24	20	44	
MEASURING RESISTANCE									
F J14 F1-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS DEALING	26	21	27	25	9	14	8	9	
WITH MICROPHONES									
F J15 F1-02 DO YOU INSPECT MICROPHONES	13	15	13	14	3	0	3	6	
F J16 F1-03 DO YOU CLEAN MICROPHONES	7	2	7	8	1	0	2	0	MICROPHONES
F J17 F1-04 DO YOU OPERATE MICROPHONES	28	26	29	26	9	14	8	9	
F J18 F1-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE	21	15	22	20	5	0	6	6	
CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT									
F J19 F1-06 DO YOU TROUBLESHOOT DOWN TO MICROPHONE PARTS	6	4	5	8	2	5	3	0	
F J20 F1-07 DO YOU REMOVE OR REPLACE COMPLETE MICROPHONES	14	9	15	15	4	0	5	6	
F J21 F1-08 DO YOU REMOVE OR REPLACE MICROPHONE PARTS	4	2	5	5	2	0	3	3	
F J22 F1-09 DO YOU PERFORM TASKS ON CARBON MICROPHONES	9	6	9	12	3	0	3	6	
F J23 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES	2	0	2	3	1	0	1	0	
F J24 F1-11 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES	3	4	3	5	2	5	2	0	
F J25 F1-12 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES	10	4	9	17	3	0	2	9	
F J26 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES	1	0	1	2	1	0	1	0	
F J27 F2-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS DEALING	10	9	11	8	5	5	5	9	
WITH SPEAKERS									
F J28 F2-02 DO YOU INSPECT SPEAKERS	3	2	4	4	2	0	1	6	
F J29 F2-03 DO YOU CLEAN SPEAKERS	2	2	2	2	1	0	1	0	
F J30 F2-04 DO YOU OPERATE SPEAKERS	10	9	11	7	5	5	5	9	SPEAKERS
F J31 F2-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE	7	6	8	5	3	0	3	6	
CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT									
F J32 F2-06 DO YOU TROUBLESHOOT DOWN TO SPEAKER PARTS	1	0	1	1	1	0	1	0	
F J33 F2-07 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS	4	2	4	5	2	0	1	6	
F J34 F2-08 DO YOU REMOVE OR REPLACE SPEAKER PARTS	0	0	0	1	1	0	1	0	
F J35 F2-09 DO YOU PERFORM ANY TASKS ON SPEAKER CONES	0	0	0	0	1	0	1	0	
F J36 F2-10 DO YOU PERFORM ANY TASKS ON SPEAKER SPIDERS	0	0	0	0	1	0	1	0	
F J37 F2-11 DO YOU PERFORM ANY TASKS ON SPEAKER FIELD COILS	0	0	0	0	1	0	1	0	
F J38 F2-12 DO YOU PERFORM ANY TASKS ON SPEAKER VOICE COILS	0	0	1	0	1	0	1	0	
F J39 F2-13 DO YOU PERFORM ANY TASKS ON SPEAKER PERMANENT MAGNETS	0	0	1	0	1	0	1	0	
F J40 F2-14 DO YOU PERFORM ANY TASKS ON SPEAKER ELECTROMAGNETS	0	0	0	0	1	0	1	0	
F J41 F2-15 DO YOU PERFORM ANY TASKS ON SPEAKER SOFT IRON CONES	0	0	0	0	1	0	1	0	
F J42 F3-01 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB	24	15	28	36	33	19	34	38	
F J43 F3-02 DO YOU USE OSCILLOSCOPES TO PERFORM OPERATIONAL	19	8	19	27	20	5	21	24	
CHECKS									
F J44 F3-03 DO YOU USE OSCILLOSCOPES TO PERFORM ALIGNMENTS OR	9	6	9	10	13	10	14	12	OSCILLOSCOPES
ADJUSTMENTS									
F J45 F3-04 DO YOU USE OSCILLOSCOPES TO TROUBLESHOOT ELECTRONIC	23	11	23	30	32	14	33	38	
CIRCUITS									
F J46 F3-05 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCY	16	9	17	17	19	14	21	15	
F J47 F3-06 DO YOU USE OSCILLOSCOPES TO MEASURE TIME	11	8	10	14	12	10	12	12	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPC 038	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
F 348 F3-07 DO YOU USE OSCILLOSCOPES TO OBSERVE LISAJOUS PATTERNS	4	4	4	4	4	5	3	6
F 349 F3-08 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES	17	9	15	26	18	10	16	29
F 350 F3-09 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS	6	4	6	8	6	5	6	9
F 351 F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGE	19	9	20	23	23	14	26	18
F 352 F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS	10	8	8	18	12	14	10	18
F 353 F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGE	18	6	17	24	23	10	24	26
G 354 G1-01 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB	9	13	7	12	9	14	6	12
G 355 G1-02 DO YOU INSPECT DIODES	2	4	1	4	2	5	1	6
G 356 G1-03 DO YOU REMOVE OR REPLACE DIODES	2	0	2	3	1	0	1	0
G 357 G1-04 DO YOU CHECK DIODES USING AN INSTRUMENT	6	9	5	8	5	10	4	9
G 358 G1-05 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES	0	2	0	0	1	5	0	0
G 359 G1-06 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES	1	0	1	0	0	0	0	0
G 360 G1-07 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES	1	0	1	3	2	0	1	6
G 361 G1-08 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES	4	6	3	5	2	5	1	3
G 362 G1-09 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON EFFECTS OF LOOPING ON CURRENT FLOW	4	6	2	8	4	5	1	12
G 363 G1-10 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF LOOPING ON CURRENT FLOW	1	0	1	3	0	0	0	0
G 364 G1-11 DO YOU USE OR REFER TO MEASUREMENTS OF FORWARD BIAS RESISTANCE	3	8	2	6	3	10	1	6
G 365 G1-12 DO YOU USE OR REFER TO DIODE COLOR CODING	1	2	1	1	1	5	0	0
G 366 G1-13 DO YOU USE OR REFER TO CENTRIFUGAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS	0	0	0	0	0	0	0	0
G 367 G1-14 DO YOU USE OR REFER TO CENTRIPETAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS	0	0	0	0	0	0	0	0
G 368 G1-15 DO YOU USE OR REFER TO DIODE NUMBERING SYSTEM, SUCH AS IN 538	1	4	0	3	1	5	0	0
G 369 G1-16 DO YOU USE OR REFER TO KINETIC ENERGY OF AN ELECTRON MOVING IN ORBIT	0	0	0	0	0	0	0	0
G 370 G1-17 DO YOU USE OR REFER TO POTENTIAL ENERGY OF AN ELECTRON MOVING IN ORBIT	0	0	0	0	0	0	0	0
G 371 G1-18 DO YOU USE OR REFER TO MEASUREMENTS OF REVERSE BIAS RESISTANCE	2	2	1	5	1	0	1	3
G 372 G1-19 DO YOU USE OR REFER TO NUMBER OF ELECTRONS IN A PARTICULAR SHELL OR ORBIT	0	0	0	1	1	0	0	3
G 373 G1-20 DO YOU USE OR REFER TO PERMISSIBLE ENERGY LEVELS OF AN ORBITING ELECTRON	0	0	0	1	1	0	0	3

SEMICONDUCTOR
DIODES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		DY-15K									
		SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
		038	039	040	041	042	043	044	045		
G 374	GI-21 DO YOU USE OR REFER TO FORBIDDEN ENERGY LEVELS OF AN ORBITING ELECTRON	0	0	0	0	0	0	0	0	0	0
G 375	GI-22 DO YOU USE OR REFER TO VALENCE ELECTRONS (THOSE IN THE OUTERMOST SHELL)	0	0	0	1	1	0	0	0	0	0
G 376	GI-23 DO YOU USE OR REFER TO ATOMIC NUMBER (TOTAL NUMBER OF ELECTRONS IN ATOM)	0	0	0	1	1	0	0	0	0	0
G 377	GI-24 DO YOU USE OR REFER TO SYMBOLS ON THE DIODE WHICH INDICATE THE CATHODE END	5	8	3	9	5	14	2	9		
G 378	GI-25 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON	1	2	0	2	1	0	1	3		
G 379	GI-26 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE INCREASES COEFFICIENTS OF RESISTANCE DECREASE)	2	4	2	4	1	0	0	6		
G 380	GI-27 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES, SUCH AS VOLTAGE - CURRENT	0	0	0	1	0	0	0	0		
G 381	GI-28 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR FORWARD BIAS OR REVERSE BIAS	5	4	4	8	4	5	4	3		
G 382	GI-29 DO YOU USE OR REFER TO VALENCE BAND IN SEMICONDUCTOR MATERIALS	0	0	0	0	1	0	1	0		
G 383	GI-30 DO YOU USE OR REFER TO FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS	0	0	0	0	0	0	0	0		
G 384	GI-31 DO YOU USE OR REFER TO CONDUCTION BAND IN SEMICONDUCTOR MATERIALS	0	0	0	0	1	0	1	0		
G 385	GI-32 DO YOU USE OR REFER TO COVALENT BONDING IN SEMICONDUCTOR MATERIALS	0	0	0	0	0	0	0	0		
G 386	GI-33 DO YOU USE OR REFER TO ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS	0	0	0	1	1	0	0	0		
G 387	GI-34 DO YOU USE OR REFER TO ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS	2	0	1	4	1	0	0	0		
G 388	GI-35 DO YOU USE OR REFER TO DONOR IMPURITY IN SEMICONDUCTORS	0	0	0	1	1	0	0	0		
G 389	GI-36 DO YOU USE OR REFER TO ACCEPTOR IMPURITY IN SEMICONDUCTORS	0	0	0	1	1	0	0	0		
G 390	GI-37 DO YOU USE OR REFER TO P-TYPE SEMICONDUCTOR MATERIAL	3	4	2	5	2	5	1	6		
G 391	GI-38 DO YOU USE OR REFER TO N-TYPE SEMICONDUCTOR MATERIAL	3	4	2	5	2	5	1	6		
G 392	GI-39 DO YOU USE OR REFER TO MAJORITY CARRIERS IN SEMICONDUCTORS	1	0	1	1	1	0	0	0		
G 393	GI-40 DO YOU USE OR REFER TO MINORITY CARRIERS IN SEMICONDUCTORS	0	0	1	0	0	0	0	0		
G 394	GI-41 DO YOU USE OR REFER TO JUNCTION RECOMBINATION IN SEMICONDUCTORS	0	0	0	1	1	0	1	0		
G 395	GI-42 DO YOU USE OR REFER TO DEPLETION REGION IN SEMICONDUCTORS	1	0	1	1	1	0	1	0		
G 396	GI-43 DO YOU USE OR REFER TO RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL	0	0	0	1	1	0	1	0		

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

SPC SPC SPC SPC SPC SPC SPC SPC
038 039 040 041 042 043 044 045

DY-TSK

G 397 G1-N4 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT
RESISTANCE RATIO FOR DIODES
G 398 G1-N5 DO YOU USE OR REFER TO BARRIER HEIGHT IN
SEMICONDUCTORS
G 399 G1-N6 DO YOU USE OR REFER TO DIODE SUBSTITUTION
INFORMATION
G 400 G1-N7 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD
CURRENT DIODE RATINGS
G 401 G1-N8 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT
DIODE RATINGS
G 402 G1-N9 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE
RATINGS
G 403 G1-N0 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE
DIODE RATINGS
G 404 G2-01 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB.
G 405 G2-02 DO YOU INSPECT TRANSISTORS
G 406 G2-03 DO YOU REMOVE OR REPLACE TRANSISTORS
G 407 G2-04 DO YOU CHECK TRANSISTORS USING AN INSTRUMENT
G 408 G2-05 DO YOU USE OR REFER TO EMITTER - BASE (EB) FORWARD
AND REVERSE RESISTANCE MEASUREMENTS
G 409 G2-06 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD
AND REVERSE RESISTANCE MEASUREMENTS
G 410 G2-07 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC)
RESISTANCE MEASUREMENTS
G 411 G2-08 DO YOU USE OR REFER TO HOB BIASING AFFECTS THE
PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION
G 412 G2-09 DO YOU USE OR REFER TO HOB BIASING AFFECTS THE
PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION
G 413 G2-10 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE
TRANSISTOR STRUCTURE (COLLECTOR, BASE AND EMITTER)
G 414 G2-11 DO YOU USE OR REFER TO LEAKAGE CURRENT (ICBO) IN A
TRANSISTOR
G 415 G2-12 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS
G 416 G2-13 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS
Q1, Q2, Q3, ETC
G 417 G2-14 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION
INFORMATION
G 418 G2-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
TRANSISTOR BASE CURRENT IS NORMALLY SIGNIFICANTLY
G 419 G2-16 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER
BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR
G 420 G2-17 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT
(ICBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES
G 421 G2-18 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC
CURVES

TRANSISTORS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGSPC SPC SPC SPC SPC SPC SPC SPC
038 039 040 041 042 043 044 045

DY-TSK

G 448 G3-21 DO YOU CALCULATE THE CURRENT GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE
G 449 G3-22 DO YOU CALCULATE THE POWER GAIN FOR A SPECIFIC TRANSISTOR USING A FORMULA THAT IS, DO YOU MULTIPLY THE
G 450 G3-23 DO YOU NEED TO KNOW THAT MORE COLLECTOR CURRENT IS GENERATED WITH LESS COLLECTOR VOLTAGE AS TEMPERATURE
G 451 G3-24 DO YOU COMPUTE THE STATIC OPERATING POINT EQ3 OF A TRANSISTOR AT DIFFERENT TEMPERATURES
G 452 G3-25 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
G 453 G3-26 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH SELF-
G 454 G3-27 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
G 455 G3-28 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
G 456 G3-29 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
G 457 G3-30 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
G 458 G3-31 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM EMITTER (SWAMP) RESISTOR STABILIZATION
G 459 G3-32 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM SELF-BIAS STABILIZATION
G 460 G3-33 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THERMISTOR STABILIZATION
G 461 G3-34 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM FORWARD BIAS DIODE STABILIZATION
G 462 G3-35 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM REVERSE BIAS DIODE STABILIZATION
G 463 G3-36 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM DOUBLE DIODE STABILIZATION
G 464 G3-37 DO YOU IDENTIFY AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS
G 465 G3-38 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF AMPLITUDE DISTORTION

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

01-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	038	039	040	041	042	043	044	045
G 466 G3-39 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS	1	2	0	1	0	0	0	0
G 467 G3-40 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS	1	2	0	1	0	0	0	0
G 468 G3-41 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF PHASE DISTORTION	0	2	0	0	0	0	0	0
G 469 G3-42 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF FREQUENCY DISTORTION	0	2	0	0	0	0	0	0
G 470 G3-43 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING THE CLASS OF OPERATION FOR	0	0	1	0	0	0	0	0
G 471 G3-44 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS	1	2	1	1	1	0	0	3
G 472 G3-45 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS	1	2	1	1	1	0	0	3
G 473 G3-46 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	1	2	1	1	1	0	0	3
G 474 G3-47 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS	1	2	0	1	1	0	0	3
G 475 G3-48 DO YOU TROUBLESHOOT OR REPAIR COMBINO-CONNECTED AMPLIFIERS	1	2	1	1	1	0	0	3
G 476 G3-49 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS	1	2	1	1	1	0	0	3
M 477 M1-01 DO YOU USE OR REFER TO VARIATORS	2	2	1	1	1	0	1	3
M 478 M1-02 DO YOU USE OR REFER TO TUNNEL DIODES	3	4	1	0	3	5	1	9
M 479 M1-03 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTORS (FET)	4	2	3	0	3	0	2	9
M 480 M1-04 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTORS	3	2	1	9	3	0	2	9
M 481 M1-05 DO YOU USE OR REFER TO ZENER DIODES	14	9	12	22	15	10	12	29
M 482 M1-06 DO YOU USE OR REFER TO INTEGRATED CIRCUITS	25	30	24	26	27	29	25	32
M 483 M2-01 IN YOUR PRESENT JOB DO YOU WORK WITH POWER SUPPLIES	27	25	29	23	41	29	45	35
M 484 M2-02 DO YOU INSPECT POWER SUPPLIES	10	11	10	9	12	14	12	12
M 485 M2-03 DO YOU CLEAN POWER SUPPLIES	2	0	1	6	2	0	2	6
M 486 M2-04 DO YOU ALIGN OR ADJUST POWER SUPPLIES	2	2	3	2	3	0	4	3
M 487 M2-05 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL	12	17	11	12	13	10	13	15
M 488 M2-06 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS	9	4	11	6	10	0	13	9
M 489 M2-07 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES	24	17	27	20	38	29	41	35
M 490 M2-08 DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS	3	2	4	2	4	5	3	3
M 491 M2-09 DO YOU WORK WITH HALF-WAVE RECTIFIERS	4	2	3	0	5	0	4	15
M 492 M2-10 DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS	4	2	3	0	6	0	4	18
M 493 M2-11 DO YOU WORK WITH BRIDGE RECTIFIERS	5	4	4	0	5	0	4	15
M 494 M2-12 DO YOU WORK WITH THREE-PHASE RECTIFIERS	3	4	2	7	5	5	3	15
M 495 M2-13 DO YOU USE OR REFER TO INPUT VOLTAGE	10	4	4	17	13	0	12	26
M 496 M2-14 DO YOU USE OR REFER TO INPUT FREQUENCY	7	4	6	13	10	0	0	21
M 497 M2-15 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGE	7	2	6	10	9	0	0	10
M 498 M2-16 DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGE	7	2	6	10	9	0	0	10
M 499 M2-17 DO YOU USE OR REFER TO RIPPLE AMPLITUDE	3	2	2	6	4	0	3	12
M 500 M2-18 DO YOU USE OR REFER TO RIPPLE FREQUENCY	3	2	2	6	4	0	3	12

SOL ID-STATE
SPECIAL PURPOSE
DEVICES

POWER SUPPLIES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC SPC SPC SPC SPC SPC SPC
038 039 040 041 042 043 044 045

M 501 M2-19 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE
M 502 M2-20 DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS
M 503 M2-21 DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGE
M 504 M2-22 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE
FILTERS
M 505 M2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE
FILTERS
M 506 M2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE
INPUT L-TYPE FILTERS
M 507 M2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE
INPUT L-TYPE FILTERS
M 508 M2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE
FILTERS
M 509 M2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE
FILTERS
M 510 M2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY DONT
REMEMBER WHICH TYPE OF FILTER
M 511 M2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF
FILTER WITH A DIFFERENT TYPE FILTER
M 512 M3-01 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB
M 513 M3-02 DO YOU INSPECT OSCILLATORS
M 514 M3-03 DO YOU ALIGN OR ADJUST OSCILLATORS
M 515 M3-04 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS
M 516 M3-05 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS
M 517 M3-06 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL
M 518 M3-07 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS
M 519 M3-08 DO YOU USE OR REFER TO FEEDBACK
M 520 M3-09 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES
(FDD)
M 521 M3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY
M 522 M3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY
M 523 M3-12 DO YOU USE OR REFER TO DAMPING
M 524 M3-13 DO YOU USE OR REFER TO REGENERATIVE FEEDBACK
M 525 M3-14 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT
M 526 M3-15 DO YOU USE OR REFER TO CRITICAL DAMPING
M 527 M3-16 DO YOU USE OR REFER TO UNDER DAMPING
M 528 M3-17 DO YOU USE OR REFER TO OVER DAMPING
M 529 M3-18 DO YOU WORK WITH OSCILLATORS WHICH USE LC TANK
CIRCUITS AS FDD
M 530 M3-19 DO YOU WORK WITH OSCILLATORS WHICH USE RC NETWORKS AS
FDD
M 531 M3-20 DO YOU WORK WITH OSCILLATORS WHICH USE CRYSTALS AS
FDD
M 532 M3-21 DO YOU WORK WITH OSCILLATORS WHICH USE DONT REMEMBER
WHICH TYPE OF FDD
M 533 M3-22 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL
OSCILLATORS

OSCILLATORS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSR

SPC SPC SPC SPC SPC SPC SPC SPC
038 039 040 041 042 043 044 045

M 534 M3-23 DO YOU WORK WITH SHUNT MARLEY SINUSOIDAL OSCILLATORS	0	0	0	2	1	0	0	3
M 535 M3-24 DO YOU WORK WITH COLETT'S SINUSOIDAL OSCILLATORS	0	0	0	2	1	0	0	3
M 536 M3-25 DO YOU WORK WITH CLAP SINUSOIDAL OSCILLATORS	0	0	0	2	0	0	0	0
M 537 M3-26 DO YOU WORK WITH BUTLER SINUSOIDAL OSCILLATORS	0	0	0	1	0	0	0	0
M 538 M3-27 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF OSCILLATORS	2	4	2	2	5	5	6	6
I 539 I1-01 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB	2	2	1	4	2	0	2	6
I 540 I1-02 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS	1	2	0	2	1	0	0	3
I 541 I1-03 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS	0	0	0	0	0	0	0	0
I 542 I1-04 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS	0	0	0	0	0	0	0	0
I 543 I1-05 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUITS	1	2	1	2	1	0	1	3
I 544 I1-06 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUIT COMPONENTS	1	2	1	2	2	0	2	3
I 545 I1-07 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR SHAPING CIRCUITS	1	0	0	2	1	0	0	3
I 546 I1-08 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING COMPONENTS	0	0	0	0	1	0	1	0
I 547 I1-09 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK CIRCUITS	1	0	0	3	1	0	0	6
I 548 I1-10 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORKS	1	0	0	4	1	0	0	6
I 549 I1-11 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTALS	1	0	0	4	1	0	0	6
I 550 I1-12 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN DON'T REMEMBER WHICH TYPE OF FID	1	0	0	2	2	0	1	6
I 551 I1-13 DO YOU WORK WITH ASTABLE MULTIVIBRATORS	1	0	0	4	1	0	0	6
I 552 I1-14 DO YOU WORK WITH MONOSTABLE MULTIVIBRATORS	1	0	0	4	1	0	0	6
I 553 I1-15 DO YOU WORK WITH BISTABLE MULTIVIBRATORS	1	0	0	4	1	0	0	6
I 554 I1-16 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE MULTIVIBRATORS	0	0	0	1	1	0	1	3
I 555 I2-01 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT JOB	2	0	1	6	2	0	1	9
I 556 I2-02 DO YOU WORK WITH SERIES DIODE LIMITERS	1	0	0	5	1	0	0	6
I 557 I2-03 DO YOU WORK WITH SHUNT DIODE LIMITERS	1	0	0	4	1	0	0	6
I 558 I2-04 DO YOU WORK WITH LIMITERS WITH BIAS	1	0	0	4	1	0	0	6
I 559 I2-05 DO YOU WORK WITH ZENER DIODE LIMITERS	1	0	0	6	2	0	0	9
I 560 I2-06 DO YOU WORK WITH TRANSISTOR LIMITERS	1	0	0	5	1	0	0	6
I 561 I2-07 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF LIMITERS	1	0	0	2	2	0	1	6
I 562 I2-08 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS	1	0	0	4	1	0	0	6
I 563 I2-09 DO YOU WORK WITH DIODE CLAMPING CIRCUITS WITH BIAS	1	0	0	3	1	0	0	6
I 564 I2-10 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF CLAMPING CIRCUIT	1	0	0	2	2	0	1	6
I 565 I3-01 IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH CONTAINS ELECTRON TUBES	2	2	2	3	2	5	2	0
I 566 I3-02 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD	0	0	1	0	1	0	2	0

LIMITERS AND
CLAMPERS

ELECTRON TUBES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC 038	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
I 567 13-03 DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES	0	0	0	0	0	0	0	0
I 568 13-04 DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES	0	0	0	0	0	0	0	0
I 569 13-05 DO YOU USE SCOPES TO CHECK ELECTRON TUBES	0	0	0	0	1	0	1	0
I 570 13-06 DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES	1	0	1	0	2	0	3	0
I 571 13-07 DO YOU USE OR REFER TO CUTOFF	0	0	0	0	0	0	0	0
I 572 13-08 DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING	0	0	0	0	0	0	0	0
I 573 13-09 DO YOU USE OR REFER TO PEAK CURRENT RATING	0	0	0	0	0	0	0	0
I 574 13-10 DO YOU USE OR REFER TO TRANSIT TIME	0	0	0	0	0	0	0	0
I 575 13-11 DO YOU USE OR REFER TO PLATE DISSIPATION RATING	0	0	0	0	0	0	0	0
I 576 13-12 DO YOU USE OR REFER TO SATURATION	0	0	0	0	0	0	0	0
I 577 13-13 DO YOU USE OR REFER TO DC PLATE RESISTANCE	0	0	0	0	0	0	0	0
I 578 13-14 DO YOU COMPUTE ACTUAL VALUES OF THE DC PLATE RESISTANCE FOR ELECTRON TUBES	0	0	0	0	0	0	0	0
I 579 13-15 DO YOU USE OR REFER TO PLATE VOLTAGE	0	0	0	0	0	0	0	0
I 580 13-16 DO YOU USE OR REFER TO PLATE CURRENT	0	0	0	0	0	0	0	0
I 581 13-17 DO YOU USE OR REFER TO GRID VOLTAGE	0	0	0	0	0	0	0	0
I 582 13-18 DO YOU USE OR REFER TO GRID CURRENT	0	0	0	0	0	0	0	0
I 583 13-19 DO YOU USE OR REFER TO CATHODE VOLTAGE	0	0	0	0	0	0	0	0
I 584 13-20 DO YOU USE OR REFER TO CATHODE CURRENT	0	0	0	0	0	0	0	0
I 585 13-21 DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODES IS DEFINED AS AMPLIFICATION FACTORS	0	0	0	0	0	0	0	0
I 586 13-22 DO YOU CALCULATE ACTUAL VALUES OF TRIODE AMPLIFICATION FACTORS	0	0	0	0	0	0	0	0
I 587 13-23 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC) AMPLIFICATION FACTORS	0	0	0	0	0	0	0	0
I 588 13-24 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G _m WHICH IS MEASURED IN MHOS)	0	0	0	0	0	0	0	0
I 589 13-25 DO YOU CALCULATE ACTUAL VALUES OF ELECTRON TUBE TRANSCONDUCTANCES	0	0	0	0	0	0	0	0
I 590 13-26 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE	0	0	0	0	0	0	0	0
I 591 13-27 DO YOU CALCULATE ACTUAL VALUES OF AC PLATE RESISTANCE	0	0	0	0	0	0	0	0
I 592 13-28 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE	0	0	0	0	0	0	0	0
I 593 13-29 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES	0	0	0	0	0	0	0	0
I 594 13-30 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE VOLTAGE FOR A SPECIFIED BIAS	0	0	0	0	0	0	0	0
I 595 13-31 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE CURRENT FOR A SPECIFIED BIAS	0	0	0	0	0	0	0	0
I 596 13-32 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR CUTOFF	0	0	0	0	1	0	1	0
I 597 13-33 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR SATURATION	0	0	0	0	1	0	1	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC 036	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045	
I 598 13-34 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER GAIN EFFICIENCY	0	0	0	0	0	0	0	0	
I 599 13-35 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER TUBE AMPLIFIER GAIN	0	0	0	0	0	0	0	0	
I 600 13-36 DO YOU USE TEST TUBE CHECKERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	0	0	0	0	0	0	0	
I 601 13-37 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	0	1	0	1	0	1	0	
I 602 13-38 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	0	0	0	0	0	0	0	
I 603 13-39 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	0	0	0	0	0	0	0	
I 604 13-40 DO YOU CALCULATE ANY ELECTRON TUBE CAPACITANCES SUCH AS INPUT CAPACITANCE	0	0	0	0	0	0	0	0	
I 605 13-41 DO YOU USE OR REFER TO TUBE SOCKET NOTATION	0	0	0	0	0	0	0	0	
I 606 13-42 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS	0	0	0	0	1	0	1	0	
I 607 13-43 DO YOU USE OR REFER TO THE TYPE OF MATERIAL OR THE OPERATING TEMPERATURE OF THE EMITTING SURFACE IN THE	0	0	0	0	0	0	0	0	
I 608 13-44 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS	0	0	0	0	0	0	0	0	
J 80V J1-01 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB	0	0	0	0	0	0	0	0	ELECTRON TUBE AMPLIFIERS AND CIRCUITS
J 610 J1-02 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER	0	0	0	0	0	0	0	0	
J 611 J1-03 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS	0	0	0	0	0	0	0	0	
J 612 J1-04 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	0	0	0	0	0	0	0	0	
J 613 J1-05 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS	0	0	0	0	0	0	0	0	
J 614 J1-06 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS	0	0	0	0	0	0	0	0	
J 615 J1-07 DO YOU TROUBLESHOOT OR REPAIR DON'T KNOW WHICH TYPE OF AMPLIFIER	0	0	0	0	0	0	0	0	
J 616 J2-01 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE)	0	0	0	0	0	0	0	0	
J 617 J2-02 DO YOU WORK WITH CATHODE-RAY TUBES	5	8	5	5	11	14	11	9	SPECIAL PURPOSE ELECTRON TUBES
J 618 J2-03 DO YOU USE OR REFER TO THE CHARACTERISTICS OF BEAM POWER TUBES	0	0	0	0	0	0	0	0	
J 619 J2-04 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH BEAM POWER TUBES ARE USED	0	0	0	0	1	0	1	0	
J 620 J2-05 DO YOU USE OR REFER TO THE CHARACTERISTICS OF THERMIONS	0	0	0	1	1	0	1	3	
J 621 J2-06 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH THERMIONS ARE USED	0	0	0	1	1	0	1	3	
J 622 J2-07 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)	4	4	4	4	4	10	9	9	
J 623 J2-08 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES	4	4	4	5	8	10	8	4	

DY-TSK

SPC SPC SPC SPC SPC SPC SPC SPC
038 039 040 041 042 043 044 045

J 624 J2-09 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF
ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES

3 4 2 4 6 10 6 6

J 625 J2-10 DO YOU USE OR REFER TO PHOSPHOR SCREENS

4 4 3 7 6 10 4 12

J 626 J2-11 DO YOU USE OR REFER TO AQUADAG COATINGS

1 0 1 4 2 0 1 9

J 627 J2-12 DO YOU USE OR REFER TO ELECTRON OPTICS

1 2 1 0 2 5 3 0

J 628 J2-13 DO YOU USE OR REFER TO PERSISTENCE

1 0 1 3 2 0 1 6

J 629 J2-14 DO YOU USE OR REFER TO DECAY TIMES

2 4 1 2 2 10 1 3

J 630 J2-15 DO YOU USE OR REFER TO FLUORESCENCE

2 0 3 2 2 0 4 0

J 631 J2-16 DO YOU USE OR REFER TO PHOSPHORESCENCE

3 0 3 3 3 0 4 3

J 632 J3-01 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR
PRESENT JOB

40 42 40 36 51 48 53 44

J 633 J3-02 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS

7 13 7 4 13 10 16 9

J 634 J3-03 DO YOU PERFORM TASKS ON FREQUENCY MIXERS

8 13 8 6 16 10 17 15

J 635 J3-04 DO YOU USE OR REFER TO THE HETERODYNING OF SIGNALS
IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS

7 11 5 10 6 10 3 15

J 636 J3-05 DO YOU PERFORM TASKS ON REACTANCE MODULATORS

2 8 2 2 4 5 3 6

K 637 J3-06 DO YOU PERFORM TASKS ON MODULATED OSCILLATORS
IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS

21 21 20 25 4 12 14 12

K 638 K1-01 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS

18 17 17 21 2 5 0 6

K 639 K1-02 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS

5 4 5 8 1 5 0 0

K 640 K1-03 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS

5 4 6 2 1 5 0 0

K 641 K1-04 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS

21 19 20 23 2 5 0 6

K 642 K1-05 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS

9 11 9 8 2 5 0 6

K 643 K1-06 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE
COMPONENTS

22 19 20 26 2 5 0 9

K 644 K1-07 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE
SYSTEMS

9 13 10 5 1 5 0 3

K 645 K1-08 DO YOU PERFORM TASKS ON RF OSCILLATORS

2 6 1 1 2 5 2 3

K 646 K1-09 DO YOU PERFORM TASKS ON RF AMPLIFIERS

3 9 2 1 1 5 1 0

K 647 K1-10 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS

2 8 1 1 1 5 0 0

K 648 K1-11 DO YOU PERFORM TASKS ON POWER AMPLIFIERS

4 9 4 3 1 5 0 0

K 649 K1-12 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS

1 6 1 0 1 5 0 0

K 650 K1-13 DO YOU PERFORM TASKS ON IF AMPLIFIERS

1 6 1 0 1 5 0 0

K 651 K1-14 DO YOU PERFORM TASKS ON DETECTORS

1 4 1 0 1 5 0 0

K 652 K1-15 DO YOU PERFORM TASKS ON DON'T REMEMBER WHICH AM STAGE

1 2 1 1 0 0 0 0

K 653 K1-16 DO YOU PERFORM TASKS ON DON'T REMEMBER WHICH AM STAGE

2 8 1 2 2 10 0 3

K 654 K1-17 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN
TRANSMITTERS

3 9 1 7 2 10 0 6

K 655 K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN
TRANSMITTERS

14 17 15 17 2 5 0 9

K 656 K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS

12 11 12 12 1 0 0 3

K 657 K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS

1 2 2 1 0 0 0 0

K 658 K1-21 DO YOU USE OR REFER TO 2ND HARMONIC DISTORTION

1 2 1 1 0 0 0 0

K 659 K1-22 DO YOU USE OR REFER TO BANDPASS DISTORTION

1 2 1 1 0 0 0 0

K 660 K1-23 DO YOU USE OR REFER TO SQUARE LAW DISTORTION

1 2 0 1 0 0 0 0

HETERODYNING,
MODULATION, AND
DEMULATION

AM SYSTEMS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-15K

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	038	039	040	041	042	043	044	045	
K 661 K1-24 DO YOU USE OR REFER TO CO-CHANNEL INTERFERENCE	4	4	5	4	0	0	0	0	
K 662 K1-25 DO YOU USE OR REFER TO IMAGE FREQUENCIES IN RECEIVERS	2	2	2	2	0	0	0	0	
K 663 K1-26 DO YOU USE OR REFER TO SIGNAL TO IMAGE RATIOS OR IMAGE REJECTION RATIOS	3	6	2	3	0	0	0	0	
K 664 K1-27 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM TRANSMITTER SCHEMATIC DIAGRAMS	6	9	6	6	3	10	1	6	
K 665 K1-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM RECEIVER SCHEMATIC DIAGRAMS	7	9	6	6	3	10	1	6	
K 666 K2-01 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB	10	17	9	10	6	19	4	6	
K 667 K2-02 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS	8	15	7	7	5	14	4	3	
K 668 K2-03 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS	2	4	2	1	1	5	1	0	FM SYSTEMS
K 669 K2-04 DO YOU ALIGN FM TRANSMIT OR RECEIVE SYSTEMS	1	2	1	1	2	5	2	0	
K 670 K2-05 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS	8	9	8	8	3	5	2	6	
K 671 K2-06 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS	4	9	4	2	2	5	2	0	
K 672 K2-07 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS	9	13	8	8	5	14	4	6	
K 673 K2-08 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS	3	6	4	2	2	5	2	0	
K 674 K2-09 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS	1	4	1	0	1	5	1	0	
K 675 K2-10 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS	1	4	0	0	1	5	1	0	
K 676 K2-11 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)	1	4	0	0	1	5	0	0	
K 677 K2-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS	2	6	2	0	1	5	1	0	
K 678 K2-13 DO YOU PERFORM TASKS ON RF AMPLIFIERS	1	4	2	0	1	5	1	0	
K 679 K2-14 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS	1	6	1	0	1	5	1	0	
K 680 K2-15 DO YOU PERFORM TASKS ON IF AMPLIFIERS	1	4	1	0	1	5	1	0	
K 681 K2-16 DO YOU PERFORM TASKS ON LIMITERS	0	4	0	0	1	5	0	0	
K 682 K2-17 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS	1	4	0	0	1	5	1	0	
K 683 K2-18 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS	3	8	3	2	2	5	2	0	
K 684 K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS	3	8	3	2	2	5	2	0	
K 685 K3-01 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS	11	13	10	13	24	24	24	24	
K 686 K3-02 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS	19	26	17	24	30	33	28	32	NUMBERING SYSTEMS
K 687 K3-03 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS	11	11	11	12	25	19	25	29	
K 688 K3-04 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS	11	13	11	11	27	29	27	26	
K 689 K3-05 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS	16	21	19	22	26	19	25	32	
K 690 K3-06 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS	11	13	11	12	27	29	27	26	
K 691 K3-07 DO YOU ADD BINARY NUMBERS TO GET A SUM	13	19	11	15	19	19	19	18	
K 692 K3-08 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD	6	6	6	8	12	5	12	15	
K 693 K3-09 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD	8	9	7	10	13	5	15	15	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

SPC SPC SPC SPC SPC SPC SPC SPC
038 039 040 041 042 043 044 045

04-TSK

LOGIC FUNCTIONS

L 694 R2-10 DO YOU ADD OCTAL NUMBERS TO GET A SUM

L 695 L1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS
RELATING TO LOGIC FUNCTIONS

L 696 L1-02 DO YOU CONSTRUCT TRUTH TABLES FOR AND LOGIC SYMBOLS
OR GATES

L 697 L1-03 DO YOU CONSTRUCT TRUTH TABLES FOR OR LOGIC SYMBOLS
OR GATES

L 698 L1-04 DO YOU CONSTRUCT TRUTH TABLES FOR AND OR LOGIC
SYMBOLS WITH STATE INDICATORS

L 699 L1-05 DO YOU CONSTRUCT TRUTH TABLES FOR EXCLUSIVE OR LOGIC
SYMBOLS OR GATES

L 700 L1-06 DO YOU USE OR REFER TO TRUTH TABLES FOR AND LOGIC
SYMBOLS OR GATES

L 701 L1-07 DO YOU USE OR REFER TO TRUTH TABLES FOR OR LOGIC
SYMBOLS OR GATES

L 702 L1-08 DO YOU USE OR REFER TO TRUTH TABLES FOR AND OR OR
LOGIC SYMBOLS WITH STATE INDICATORS

L 703 L1-09 DO YOU USE OR REFER TO TRUTH TABLES FOR EXCLUSIVE OR
LOGIC SYMBOLS

L 704 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR AND GATES

L 705 L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR OR GATES

L 706 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR NAND OR NOR
GATES

L 707 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR EXCLUSIVE
OR GATES

L 708 L2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS
RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC

L 709 L2-02 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED
TRANSISTOR LOGIC (DCTL) CIRCUITS

L 710 L2-03 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC
(CML) CIRCUITS

L 711 L2-04 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN
EQUATIONS

L 712 L2-05 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES

L 713 L2-06 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE
PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS

L 714 L2-07 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN
ALGEBRA

L 715 L2-08 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT
COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES

L 716 L2-09 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE
LOGIC (CML) CIRCUITS

L 717 L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF
MORE THAN ONE GATE

L 718 L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL
HALF OR FULL ADDER LOGIC DIAGRAMS

BOOLEAN
EQUATIONS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC 038	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
L 719 L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS	3	0	3	6	5	0	5	9
L 720 L2-13 DO YOU WORK WITH ASTABLE (FREE RUNNING) MULTIVIBRATORS	3	0	2	8	4	0	3	12
L 721 L2-14 DO YOU WORK WITH BISTABLE (FLIP-FLOP) MULTIVIBRATORS	4	2	3	8	5	0	5	9
L 722 L2-15 DO YOU WORK WITH MONOSTABLE (ONE-SHOT) MULTIVIBRATORS	3	2	2	8	4	0	3	9
L 723 L2-16 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS	4	2	3	8	4	0	3	12
L 724 L2-17 DO YOU USE OR REFER TO SINGLE-SHOT MULTIVIBRATOR SYMBOLS	3	2	1	8	3	0	1	12
L 725 L2-18 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT DIAGRAMS	4	2	3	8	5	0	4	12
L 726 L2-19 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES	3	2	2	7	3	0	2	9
L 727 L2-20 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS	2	2	2	4	2	0	3	3
L 728 L2-21 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS	2	2	2	4	2	0	3	3
L 729 L2-22 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS	1	0	0	2	2	0	1	6
L 730 L2-23 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS	3	4	2	7	4	5	3	9
L 731 L2-24 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS	3	4	2	5	4	5	3	6
L 732 L2-25 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS	1	0	1	0	1	0	1	0
L 733 L3-01 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB	12	17	12	10	13	14	13	12
L 734 L3-02 DO YOU USE OR REFER TO UP-COUNTERS	8	11	7	8	8	14	6	9
L 735 L3-03 DO YOU USE OR REFER TO DOWN-COUNTERS	9	17	8	8	8	14	6	9
L 736 L3-04 DO YOU USE OR REFER TO SERIAL COUNTERS	5	11	3	7	8	14	6	12
L 737 L3-05 DO YOU USE OR REFER TO PARALLEL COUNTERS	4	11	2	5	7	14	6	9
L 738 L3-06 DO YOU USE OR REFER TO RING COUNTERS	3	9	1	3	4	10	3	6
L 739 L3-07 DO YOU USE OR REFER TO DECADE COUNTERS	3	9	2	3	5	10	4	6
L 740 L3-08 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS	4	11	3	6	5	10	4	9
L 741 L3-09 DO YOU USE OR REFER TO DOWN CLOCKS	4	9	3	6	5	10	4	9
L 742 L3-10 DO YOU USE OR REFER TO DOWN CLOCKS	5	11	4	6	6	10	5	9
L 743 L3-11 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS	4	8	2	6	6	14	4	9
L 744 L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-FLOPS	4	8	2	6	6	14	4	9
L 745 L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS	1	6	0	3	3	10	1	6
L 746 L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS	1	4	0	2	3	10	1	6
L 747 L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER	3	9	1	4	6	19	3	9
L 748 L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS	3	6	2	5	6	10	4	12

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGSPC SPC SPC SPC SPC SPC SPC
038 039 040 041 042 043 044 045

OY-TSK

L 749 L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS

L 750 L3-18 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS

L 751 L3-19 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTED PULSES FOR SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE

L 752 L3-20 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE

L 753 L3-21 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR OTHER TYPES OF COUNTERS

L 754 L3-22 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS

L 755 L3-23 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES

L 756 L3-24 DO YOU DETERMINE THE APPROPRIATE AND GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT

M 757 MI-01 DO YOU WORK WITH SAWTOOTH WAVE GENERATORS

M 758 MI-02 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATORS

M 759 MI-03 DO YOU WORK WITH PULSED OSCILLATORS WITH REGENERATIVE FEEDBACK

M 760 MI-04 DO YOU WORK WITH PULSED OSCILLATORS WITHOUT REGENERATIVE FEEDBACK

M 761 MI-05 DO YOU WORK WITH BLOCKING OSCILLATORS

M 762 MI-06 DO YOU USE OR REFER TO RISE TIME

M 763 MI-07 DO YOU USE OR REFER TO FALL OR FLYBACK TIME

M 764 MI-08 DO YOU USE OR REFER TO SLEEP TIME

M 765 MI-09 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS

M 766 MI-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS

M 767 MI-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH WAVEFORMS

M 768 MI-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH WAVEFORMS

M 769 M2-01 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB

M 770 M2-02 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS

M 771 M2-03 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS

M 772 M2-04 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY WHILE USING SIGNAL GENERATORS

M 773 M2-05 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE COMPONENT WHILE USING SIGNAL GENERATORS

M 774 M2-06 DO YOU USE AUDIO SINE-WAVE GENERATORS

TIMING CIRCUITS

USE OF SIGNAL
GENERATORS

PCT MBRS ANSWERING YES FOR 326X2 DAFSC GRPS

GPSM3A PAGE 31

AF HUMAN RESOURCES LABORATORY
AIR FORCE SYSTEMS COMMAND

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DT-15K

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
775 M2-07 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE	1	4	0	3	1	5	0	0	0
776 M2-08 DO YOU USE RF GENERATORS LESS THAN 1,000 MH	5	9	5	4	2	5	2	3	3
777 M2-09 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH	5	8	6	4	4	5	4	3	3
778 M2-10 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION	4	8	4	4	4	5	4	3	3

GENERATORS

	15	15	15	14	12	10	12	15	
779 M3-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS OR	15	15	15	14	12	10	12	15	MOTORS AND GENERATORS
780 M3-02 DO YOU INSPECT MOTORS	5	6	5	7	8	10	8	6	
781 M3-03 DO YOU CLEAN OR LUBRICATE MOTORS	1	0	1	2	1	0	1	3	
782 M3-04 DO YOU OPERATE MOTORS	8	8	9	8	9	10	8	9	
783 M3-05 DO YOU REMOVE OR REPLACE COMPLETE MOTORS	7	9	6	6	3	0	3	6	
784 M3-06 DO YOU REMOVE OR REPLACE MOTOR PARTS	0	0	0	0	0	0	0	0	
785 M3-07 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS	10	11	10	10	10	10	9	12	
786 M3-08 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS	1	2	1	1	1	5	0	3	
787 M3-09 DO YOU PERFORM ANY TASKS ON FIELD COILS	0	0	0	0	0	0	0	0	
788 M3-10 DO YOU PERFORM ANY TASKS ON ARMATURES	0	0	0	0	0	0	0	0	
789 M3-11 DO YOU PERFORM ANY TASKS ON ROTORS	0	0	0	0	0	0	0	0	
790 M3-12 DO YOU PERFORM ANY TASKS ON BRUSHES	0	0	0	0	0	0	0	0	
791 M3-13 DO YOU PERFORM ANY TASKS ON SLIP RINGS	0	0	0	0	0	0	0	0	
792 M3-14 DO YOU PERFORM ANY TASKS ON COMPUTERS	0	0	0	0	0	0	0	0	
793 M3-15 DO YOU PERFORM ANY TASKS ON POLE PIECES	0	0	0	0	0	0	0	0	
794 M3-16 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OF THE FORCE OR TORQUE CREATED BY A MOTOR	1	4	1	1	2	5	2	3	
795 M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR	1	4	1	1	2	5	3	0	
796 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS	1	4	1	1	1	5	1	0	
797 M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS	9	13	9	9	7	10	5	12	
798 M3-20 DO YOU WORK WITH INDUCTION MOTORS	7	6	7	10	4	5	4	6	
799 M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS	4	6	3	5	4	5	3	6	
800 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS	8	9	7	8	7	10	6	9	
801 M3-23 DO YOU INSPECT GENERATORS	3	4	3	3	2	0	3	0	
802 M3-24 DO YOU CLEAN OR LUBRICATE GENERATORS	0	0	0	2	0	0	0	0	
803 M3-25 DO YOU OPERATE GENERATORS	3	0	4	3	2	0	3	3	
804 M3-26 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS	4	8	4	3	0	0	0	0	
805 M3-27 DO YOU REMOVE OR REPLACE GENERATOR PARTS	0	0	0	0	0	0	0	0	
806 M3-28 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS	6	6	6	5	1	0	1	3	
807 M3-29 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF	0	0	0	1	1	0	0	3	
808 M1-01 DO YOU WORK WITH METERS IN YOUR PRESENT JOB	66	64	69	66	63	73	68	62	METER MOVEMENTS
809 M1-02 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF PERMANENT MAGNETS	6	0	6	8	4	0	4	9	
810 M1-03 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF MOVING COILS	7	2	7	10	4	0	4	9	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

SPC SPC SPC SPC SPC SPC SPC SPC
U38 039 040 041 042 043 044 045

0Y-TSK

N 811 N1-04 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF
SPIRAL SPRINGS
N 812 N1-05 DO YOU READ METER SCALES
N 813 N1-06 DO YOU EXTEND THE RANGE OF AMMETERS
N 814 N1-07 DO YOU ZERO OHMMETERS
N 815 N1-08 DO YOU ZERO AMMETERS
N 816 N1-09 DO YOU EXTEND THE RANGE OF VOLTMETERS
N 817 N1-10 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY
(EXPRESSED IN UNITS OF OHMS PER VOLT)

N 818 N2-01 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC
AMPLIFIERS IN YOUR PRESENT JOB

N 819 N2-02 DO YOU INSPECT MAGNETIC AMPLIFIERS OR SATURABLE
REACTORS

N 820 N2-03 DO YOU CLEAN MAGNETIC AMPLIFIERS OR SATURABLE
REACTORS

N 821 N2-04 DO YOU ADJUST MAGNETIC AMPLIFIERS OR SATURABLE
REACTORS

N 822 N2-05 DO YOU TROUBLESHOOT MAGNETIC AMPLIFIERS OR SATURABLE
REACTORS

N 823 N2-06 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR
SATURABLE REACTORS

N 824 N2-07 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR
SATURABLE REACTOR COMPONENTS

N 825 N2-08 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS
N 826 N2-09 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT
WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF

N 827 N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR
WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE

N 828 N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT
WAVEFORMS FOR MAGNETIC AMPLIFIERS

N 829 N2-12 DO YOU USE OR REFER TO COERCIVE FORCE IN SATURABLE
REACTORS

N 830 N2-13 DO YOU USE OR REFER TO RESIDUAL MAGNETISM IN
SATURABLE REACTORS

N 831 N2-14 DO YOU USE OR REFER TO FLUX DENSITY IN SATURABLE
REACTORS

N 832 N2-15 DO YOU USE OR REFER TO POINT OF SATURATION IN
SATURABLE REACTORS

N 833 N2-16 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC
SYMBOLS

N 834 N3-01 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT
JOB

N 835 N3-02 DO YOU USE OR REFER TO TRANSIENT INTERVALS

N 836 N3-03 DO YOU USE OR REFER TO PULSE WIDTH (PW)

N 837 N3-04 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)

SATURABLE REACTORS
AND MAGNETIC
AMPLIFIERS

WAVESHAPING
CIRCUITS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DT-TSK

SPC SPC SPC SPC SPC SPC SPC SPC
036 039 040 041 042 043 044 045

0 873 01-29 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB
TRANSMITTER SCHEMATIC DIAGRAMS

0 874 01-30 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB
RECEIVER SCHEMATIC DIAGRAMS

0 875 02-01 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR
PRESENT JOB

0 876 02-02 DO YOU INSPECT PULSE MODULATION SYSTEMS
TRANSMITTER SCHEMATIC DIAGRAMS

0 877 02-03 DO YOU CLEAN PULSE MODULATION SYSTEMS
TRANSMITTER SCHEMATIC DIAGRAMS

0 878 02-04 DO YOU ALIGN PULSE MODULATION SYSTEMS
TRANSMITTER SCHEMATIC DIAGRAMS

0 879 02-05 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS
TRANSMITTER SCHEMATIC DIAGRAMS

0 880 02-06 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 881 02-07 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS
TRANSMITTER SCHEMATIC DIAGRAMS

0 882 02-08 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 883 02-09 DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM)
SYSTEMS

0 884 02-10 DO YOU WORK ON PULSE-DURATION MODULATION (PDM)
SYSTEMS

0 885 02-11 DO YOU WORK ON PULSE-POSITION MODULATION (PPM)
SYSTEMS

0 886 02-12 DO YOU WORK ON PULSE-CODE MODULATION (PCM) SYSTEMS
TRANSMITTER SCHEMATIC DIAGRAMS

0 887 02-13 DO YOU WORK ON LINE PULSING MODULATION SYSTEMS
TRANSMITTER SCHEMATIC DIAGRAMS

0 888 02-14 DO YOU WORK ON DON'T REMEMBER WHICH TYPE OF
MODULATION SYSTEM

0 889 02-15 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 890 02-16 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 891 02-17 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 892 02-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 893 02-19 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 894 02-20 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 895 02-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 896 02-22 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 897 02-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 898 02-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

0 899 02-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER SCHEMATIC DIAGRAMS

PULSE MODULATION
SYSTEMS

PCT MARS ANSWERING YES FOR J26X2 DAFSC GRPS
TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

GPWSMA PAGE 35

AF HUMAN RESOURCES LABORATORY
AIR FORCE SYSTEMS COMMAND

0Y-T5K

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	030	039	040	041	042	043	044	045	
0 900 02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO AMPLIFIERS	3	2	3	3	5	5	5	9	
0 901 02-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER VIDEO AMPLIFIERS	2	2	1	3	4	5	2	9	
0 902 02-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DOWNY REMEMBER WHICH PULSE MODULATION SYSTEM STAGES	2	2	2	2	3	5	3	3	
0 903 02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRT)	10	9	11	10	15	10	15	10	
0 904 02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)	7	8	7	7	7	5	6	9	
0 905 02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW)	11	13	12	9	16	14	17	15	
0 906 02-32 DO YOU USE OR REFER TO PULSE SHAPE	4	4	7	7	9	0	9	15	
0 907 02-33 DO YOU USE OR REFER TO PEAK POWER	9	2	9	9	12	0	13	15	
0 908 02-34 DO YOU USE OR REFER TO AVERAGE POWER	6	2	6	7	9	0	8	15	
0 909 02-35 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRT)	2	2	2	3	2	0	2	6	
0 910 02-36 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRT)	3	4	3	3	6	5	6	9	
0 911 02-37 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS	1	0	1	2	2	0	1	6	
0 912 02-38 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION TRANSMITTER SCHEMATIC DIAGRAMS	6	4	8	8	14	5	15	10	
0 913 02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION RECEIVER SCHEMATIC DIAGRAMS	9	13	10	6	10	19	10	15	
0 914 03-01 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB	62	64	62	58	86	86	80	79	
0 915 03-02 DO YOU INSPECT ANTENNAS	60	58	61	50	82	71	84	79	
0 916 03-03 DO YOU CLEAN ANTENNAS	31	30	29	38	32	24	32	38	ANTENNAS
0 917 03-04 DO YOU PHYSICALLY ALIGN ANTENNAS	24	32	26	15	43	43	46	32	
0 918 03-05 DO YOU ELECTRICALLY ALIGN ANTENNAS	21	21	23	19	46	38	50	38	
0 919 03-06 DO YOU TROUBLESHOOT TO ANTENNAS	60	62	62	56	87	81	90	79	
0 920 03-07 DO YOU REMOVE OR INSTALL ANTENNA COMPONENTS	22	36	21	20	35	48	34	32	
0 921 03-08 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS	62	64	63	57	87	86	90	79	
0 922 03-09 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS	13	23	13	8	19	33	10	12	
0 923 03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF E OR ELECTRIC FIELD LINES	5	11	4	5	7	14	6	9	
0 924 03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES	4	11	2	5	7	14	5	9	
0 925 03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS	3	9	1	3	4	14	2	3	
0 926 03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS	4	6	3	5	4	5	3	6	
0 927 03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE LONGER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS	4	9	2	6	4	10	3	6	
0 928 03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS	3	8	2	5	3	10	1	6	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

SPC SPC SPC SPC SPC SPC SPC SPC SPC SPC
038 039 040 041 042 043 044 045

DY-TSK

0 929 03-14 DO YOU WORK WITH HERTZ ANTENNAS
0 930 03-17 DO YOU WORK WITH MARCONI ANTENNAS
0 931 03-18 DO YOU WORK WITH BROADSIDE ARRAYS
0 932 03-19 DO YOU WORK WITH END-FIRE ARRAYS
0 933 03-20 DO YOU WORK WITH CARDIOLD ARRAYS
0 934 03-21 DO YOU WORK WITH COLLINER ARRAYS
0 935 03-22 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC
INDUCTION FIELDS WHEN WORKING WITH ANTENNAS
0 936 03-23 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF
ANTENNAS
0 937 03-24 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC
RADIATION FIELDS WHEN WORKING WITH ANTENNAS
0 938 03-25 DO YOU MEASURE ELECTROMAGNETIC RADIATION
FIELDS OF ANTENNAS
0 939 03-26 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E)
AND MAGNETIC (M) COMPONENTS IN ANTENNA RADIATION
0 940 03-27 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E)
AND MAGNETIC (M) COMPONENTS IN ANTENNA INDUCTION FIELD
0 941 03-28 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY
POLARIZED
0 942 03-29 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY
POLARIZED
0 943 03-30 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS
YOU WORK ON
0 944 03-31 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS
NECESSARY TO CONSTRUCT, ANTENNAS OF CORRECT LENGTH FOR
0 945 03-32 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC
ELEMENTS
0 946 03-33 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC
ELEMENTS SERVING AS DIRECTORS
0 947 03-34 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC
ELEMENTS SERVING AS REFLECTORS
0 948 03-35 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN DON'T
REMEMBER WHAT KIND OF ELEMENTS
0 949 03-36 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS
0 950 03-37 DO YOU WORK ON BIDIRECTIONAL ANTENNAS
0 951 03-38 DO YOU WORK ON DON'T REMEMBER THE DIRECTIONALITY
0 952 03-39 DO YOU WORK WITH ROTAR ANTENNA ARRAYS
P 953 PT-01 IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION
LINES (TRANSMISSION LINES ARE DEFINED TO INCLUDE LEADS
P 954 PT-02 DO YOU REFER TO OR USE COPPER LOSS OR IER LOSS IN
TRANSMISSION LINES
P 955 PT-03 DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY
CURRENTS IN TRANSMISSION LINES

TRANSMISSION
LINES

5 2 4 3 4 5 7 3
3 0 3 7 2 0 2 3
3 0 4 4 3 0 4 3
2 0 2 1 2 0 4 0
4 11 7 8 2 0 2 3
6 4 7 3 8 0 10 4
3 8 3 2 3 10 3 0
1 0 2 1 1 0 1 3
10 15 9 8 16 19 16 18
4 4 4 2 4 5 4 4
1 2 1 2 3 5 3 3
1 4 1 1 2 5 2 0
25 19 26 24 54 38 57 56
25 23 26 25 62 48 63 68
6 6 7 6 15 14 15 15
1 2 1 0 1 5 1 0
5 9 5 5 8 19 7 3
4 4 4 5 3 5 3 3
6 4 6 6 8 5 9 6
22 28 22 20 32 33 35 24
25 34 24 24 23 33 21 24
21 21 22 18 18 10 21 15
15 17 16 12 27 24 29 24
11 21 10 9 19 19 18 21
37 40 36 37 27 29 28 26
3 8 2 3 1 5 0 0
5 6 4 7 4 0 4 6

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	038	039	040	041	042	043	044	045	
P 956 PI-04 DO YOU REFER TO OR USE RADIATION LOSS IN TRANSMISSION LINES	12	13	12	13	5	5	5	9	
P 957 PI-05 DO YOU USE OR REFER TO DIELECTRIC LOSS IN TRANSMISSION LINES	9	8	9	6	1	0	1	0	
P 958 PI-06 DO YOU USE OR REFER TO LEAKAGE LOSSES IN TRANSMISSION LINES	15	23	15	13	6	5	7	3	
P 959 PI-07 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES	7	11	8	3	2	0	3	0	
P 960 PI-08 DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES	6	8	7	3	1	0	2	0	
P 961 PI-09 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES	4	9	4	2	1	0	2	0	
P 962 PI-10 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION LINES	37	38	37	36	27	24	29	21	
P 963 PI-11 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION LINES	29	39	29	26	12	19	13	6	
P 964 PI-12 DO YOU TROUBLESHOOT TRANSMISSION LINES	35	36	35	35	25	24	26	24	
P 965 PI-13 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION	6	4	7	2	2	0	4	0	
P 966 PI-14 DO YOU SELECT APPROPRIATE TRANSMISSION LINES TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS	2	2	2	2	1	0	2	0	
P 967 PI-15 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS	7	8	8	6	6	0	8	3	
P 968 PI-16 DO YOU MEASURE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES	19	19	18	21	1	0	1	0	
P 969 PI-17 DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES	5	4	5	5	1	0	1	0	
P 970 PI-18 DO YOU PERFORM THE CALCULATIONS NECESSARY TO DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH	1	2	1	0	1	0	1	0	
P 971 PI-19 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING MATCHING TRANSFORMERS	4	6	5	3	2	0	3	0	
P 972 PI-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING DELTA MATCHING	1	2	1	3	1	0	1	0	
P 973 PI-21 DO YOU SELECT THE TYPE OF TRANSMISSION LINE NEEDED FOR PARTICULAR JOBS WITHOUT REFERRING TO TECHNICAL DATA	0	0	1	0	1	0	1	0	
P 974 PI-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES	5	6	4	8	1	0	1	0	
P 975 PI-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES	1	2	1	0	1	0	1	0	
P 976 PI-24 DO YOU USE OR REFER TO THE TERM CUTOFF FREQUENCY OF TRANSMISSION LINES	2	0	2	1	1	0	1	0	
P 977 PI-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K) OF TRANSMISSION LINES	1	2	1	2	1	0	1	0	
P 978 PI-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION LINES FOR PARTICULAR FREQUENCIES	1	2	2	0	1	0	2	0	
P 979 PI-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR ELECTRICAL LENGTH FOR GIVEN FREQUENCIES	3	4	2	5	1	0	2	0	
P 980 PI-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF	2	0	2	4	1	0	2	0	

PCT MBRS ANSWRNG YES FOR 32X2 DAFSC GRPS

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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC 038	SPC 039	SPC UND	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
P 981 P1-29 DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION LINES	5	0	4	7	1	0	2	0
P 982 P1-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES	10	0	10	0	4	0	0	0
P 983 P1-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING STUB MATCHING	3	2	2	5	1	0	1	0
P 984 P2-01 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN YOUR PRESENT JOB	50	53	50	45	76	67	79	71
P 985 P2-02 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS	46	40	47	44	71	48	75	71
P 986 P2-03 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS	17	23	16	20	26	33	24	26
P 987 P2-04 DO YOU BEND WAVEGUIDES OR CAVITY RESONATORS	12	21	12	6	20	24	22	9
P 988 P2-05 DO YOU TWIST WAVEGUIDES OR CAVITY RESONATORS	6	9	8	1	10	10	13	3
P 989 P2-06 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS	43	34	46	41	68	38	72	74
P 990 P2-07 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS	20	21	21	17	24	14	23	32
P 991 P2-08 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS	43	43	43	42	65	48	69	65
P 992 P2-09 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES	48	51	49	43	77	71	79	74
P 993 P2-10 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS	47	45	47	46	71	57	72	79
P 994 P2-11 DO YOU REMOVE OR INSTALL DUMMY LOADS	13	11	13	13	15	10	16	18
P 995 P2-12 DO YOU REMOVE OR INSTALL E BENDS	8	13	8	6	11	14	11	9
P 996 P2-13 DO YOU REMOVE OR INSTALL H BENDS	7	11	7	6	10	10	10	9
P 997 P2-14 DO YOU REMOVE OR INSTALL OTHER BENDS	20	23	22	14	32	29	33	29
P 998 P2-15 DO YOU REMOVE OR INSTALL CHOKES JOINTS	4	8	5	2	5	10	5	3
P 999 P2-16 DO YOU REMOVE OR INSTALL ROTATING JOINTS	7	9	7	4	12	14	11	12
P1000 P2-17 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS	14	17	14	14	14	14	13	18
P1001 P2-18 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS	10	15	10	8	9	14	9	6
P1002 P2-19 DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES	2	6	2	2	3	14	1	3
P1003 P2-20 DO YOU USE OR REFER TO "B" WALL OF WAVEGUIDES	2	6	1	2	3	14	1	3
P1004 P2-21 DO YOU USE OR REFER TO CUTOFF FREQUENCY OF WAVEGUIDES	2	8	2	2	4	14	2	6
P1005 P2-22 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF WAVEGUIDES	2	4	2	1	3	10	2	3
P1006 P2-23 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF WAVEGUIDES	1	2	1	0	2	5	2	0
P1007 P2-24 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY CONDITIONS	1	4	1	0	2	10	2	0
P1008 P2-25 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS	1	4	1	0	2	10	2	0
P1009 P2-26 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY CONDITIONS	1	4	1	1	4	10	4	3
P1010 P2-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A ".8" WALL SIZE OF ".7" WAVELENGTHS	1	4	1	0	2	5	3	0
P1011 P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST ".8" WALLS RANGE FROM ".2 TO ".5 WAVELENGTHS IN SIZE WITH ".35	1	4	1	0	2	5	3	0
P1012 P2-29 ARE YOU CONCERNED WITH THE MATERIAL (SUCH AS BRASS) WHICH WAVEGUIDES ARE MADE OF	4	4	5	4	9	0	9	12
P1013 P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION	1	4	1	0	2	5	3	0

WAVEGUIDES AND
CAVITY RESONATORS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-75K

	SPC 036	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
P1014 P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR	1	2	1	1	2	0	2	3
P1015 P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR "H" LINES IN WAVEGUIDES	1	2	1	0	1	0	2	0
P1016 P2-33 DO YOU MEASURE THE TIME PHASE OF "E" OR "H" LINES IN WAVEGUIDES	0	0	0	0	1	0	1	0
P1017 P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR "H" LINES IN WAVEGUIDES	0	2	0	0	1	5	1	0
P1018 P2-35 ARE HIGH POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	1	2	1	0	1	0	1	0
P1019 P2-36 ARE LOW POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	2	4	2	1	3	5	3	3
P1020 P2-37 ARE LOOPS USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	0	1	0	1	0	2	0
P1021 P2-38 ARE APERTURES (WINDOWS OR IRISES) USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	6	2	6	8	12	0	14	15
P1022 P2-39 ARE DONUT REMEMBER THE KIND OF ENERGY COUPLING USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	17	23	18	12	24	24	28	12
P1023 P2-40 DO YOU DETERMINE WHERE PROBES SHOULD BE MOUNTED IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO	0	0	0	0	1	0	1	0
P1024 P2-41 DO YOU DETERMINE THE POSITIONING OF LOOPS IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO	0	0	0	0	1	0	1	0
P1025 P2-42 DO YOU DETERMINE THE POSITIONING OR SIZE OF APERTURES IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO	0	0	1	0	1	0	2	0
P1026 P2-43 ARE CMOKE JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	5	11	4	6	7	14	5	9
P1027 P2-44 ARE ROTATING JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	12	9	12	13	30	19	28	41
P1028 P2-45 ARE DONUT REMEMBER THE KIND OF JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	17	23	17	13	23	19	26	15
P1029 P2-46 DO YOU TUNE CAVITY RESONATORS USING CAPACITIVE TUNING	1	0	1	3	4	0	3	9
P1030 P2-47 DO YOU TUNE CAVITY RESONATORS USING INDUCTIVE TUNING	1	0	1	1	2	0	2	3
P1031 P2-48 DO YOU TUNE CAVITY RESONATORS USING VOLUME TUNING	1	0	1	0	1	0	2	0
P1032 P2-49 DO YOU TUNE CAVITY RESONATORS USING DON'T REMEMBER THE METHOD OF TUNING	9	15	9	8	15	14	16	15
P1033 P2-50 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY RESONATORS	1	2	1	1	3	0	4	3
P1034 P2-51 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS, TRAVELLING WAVE TUBES (TWTL), PARAMETRIC AMPLIFIERS, OR	17	19	16	17	41	33	41	44
P1035 P3-02 DO YOU USE OR REFER TO INTERELECTRONIC CAPACITANCE	0	0	0	2	0	0	0	0
P1036 P3-03 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME	1	0	1	1	1	0	2	0
P1037 P3-04 DO YOU USE OR REFER TO LEAD INDUCTANCE	1	0	1	1	1	0	2	0

MICROWAVE
AMPLIFIERS AND
OSCILLATORS

PCT NORS ANSWRNG YES FOR 326X2 DAFSC GRPS

AF HUMAN RESOURCES LABORATORY
AIR FORCE SYSTEMS COMMAND

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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC 038	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
P1038 P3-05 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY	3	4	3	2	7	5	9	3
P1039 P3-06 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION	1	0	1	1	2	0	3	0
P1040 P3-07 DO YOU USE OR REFER TO ELECTRON BUNCHING	1	0	1	2	1	0	1	0
P1041 P3-08 DO YOU WORK WITH TWO-CAVITY KLYSTRONS	2	2	2	2	6	5	6	6
P1042 P3-09 DO YOU WORK WITH THREE-CAVITY KLYSTRONS	2	2	2	1	5	5	6	3
P1043 P3-10 DO YOU WORK WITH REFLEX KLYSTRONS	6	2	5	10	16	5	14	29
P1044 P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)	6	6	6	7	12	10	12	12
P1045 P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS	0	2	0	0	1	5	1	0
P1046 P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS	0	2	0	0	1	5	1	0
P1047 P3-14 DO YOU WORK WITH MAGNETRONS	11	4	11	13	30	10	32	38
P1048 P3-15 DO YOU INSPECT KLYSTRONS OR TWT	3	4	3	3	5	5	5	6
P1049 P3-16 DO YOU CLEAN KLYSTRONS OR TWT	0	0	1	0	0	0	0	0
P1050 P3-17 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY	5	4	5	7	14	5	14	21
P1051 P3-18 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY	10	6	10	11	28	14	28	35
P1052 P3-19 DO YOU PERFORM OPERATIONAL CHECKS OF KLYSTRONS OR TWT	8	6	9	6	20	10	23	18
P1053 P3-20 DO YOU TROUBLESHOOT KLYSTRONS OR TWT	5	4	6	3	12	5	14	9
P1054 P3-21 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRON OR TWT	4	4	4	2	7	5	9	3
P1055 P3-22 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS	0	0	1	0	1	0	1	0
P1056 P3-23 DO YOU INSPECT PARAMETRIC AMPLIFIERS	0	0	0	1	0	0	0	0
P1057 P3-24 DO YOU CLEAN PARAMETRIC AMPLIFIERS	0	0	0	0	0	0	0	0
P1058 P3-25 DO YOU ADJUST PARAMETRIC AMPLIFIERS	0	0	0	0	0	0	0	0
P1059 P3-26 DO YOU TUNE PARAMETRIC AMPLIFIERS	0	0	0	0	1	0	1	0
P1060 P3-27 DO YOU PERFORM OPERATIONAL CHECKS OF PARAMETRIC AMPLIFIERS	1	2	1	1	3	5	3	3
P1061 P3-28 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS	0	0	0	0	1	0	1	0
P1062 P3-29 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC AMPLIFIER	0	0	0	0	1	0	1	0
P1063 P3-30 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER COMPONENTS	0	0	0	0	1	0	1	0
P1064 P3-31 DO YOU INSPECT MAGNETRONS	1	0	2	1	4	0	5	3
P1065 P3-32 DO YOU CLEAN MAGNETRONS	0	0	1	0	1	0	2	0
P1066 P3-33 DO YOU ADJUST MAGNETRONS	4	6	4	3	10	14	10	9
P1067 P3-34 DO YOU TUNE MAGNETRONS	4	6	6	8	17	14	16	24
P1068 P3-35 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS	9	8	9	8	24	19	26	24
P1069 P3-36 DO YOU TROUBLESHOOT MAGNETRONS	6	4	6	7	17	10	17	21
P1070 P3-37 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRON	4	0	6	3	12	0	16	9
P1071 P3-38 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS	0	0	0	0	1	0	1	0
P1072 P3-39 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS COLLECTOR PLATES	0	0	0	0	1	0	1	0
P1073 P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATCHER CAVITIES	0	0	0	0	1	0	1	0
P1074 P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATCHER GRIDS	0	0	0	0	1	0	1	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

TASK	DY-TSK	SPC				SPC				SPC				SPC			
		039	039	040	041	042	043	044	045	039	039	040	041	042	043	044	045
P1099 P3-66 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER IDLER CAVITIES		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1100 P3-67 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER VARACTOR DIODES		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1101 P3-68 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE ISOLATORS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1102 P3-69 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER REVERSE-BIAS BATTERIES		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1103 P3-70 DO YOU PERFORM TASKS ON ANODES		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1104 P3-71 DO YOU PERFORM TASKS ON ANODE COOLING PINS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1105 P3-72 DO YOU PERFORM TASKS ON COUPLING LOOPS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1106 P3-73 DO YOU PERFORM TASKS ON HEATER LEADS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1107 P3-74 DO YOU PERFORM TASKS ON RESONANT CAVITIES		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1108 P3-75 DO YOU PERFORM TASKS ON CATHODES		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1109 P3-76 DO YOU PERFORM TASKS ON MAGNETS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q1110 Q1-01 DO YOU USE OR REFER TO STORAGE REGISTERS		5	4	4	9	12	10	9	21								
Q1111 Q1-02 DO YOU USE OR REFER TO SHIFT REGISTERS		4	2	3	9	10	5	7	21								
Q1112 Q1-03 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS		4	2	3	7	8	5	6	15								
Q1113 Q1-04 DO YOU USE OR REFER TO LOGIC SYMBOLS OF STORAGE REGISTERS		4	4	3	7	9	10	6	15								
Q1114 Q1-05 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS		4	2	4	7	8	5	7	12								
Q1115 Q1-06 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF REGISTERS		5	4	5	6	9	10	9	9								
Q1116 Q1-07 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES		2	0	1	4	3	0	3	6								
Q1117 Q2-01 DO YOU WORK WITH DIGITAL COUNTERS, REGISTERS, OR STORAGE DEVICES IN YOUR PRESENT JOB		11	6	11	13	21	10	21	26								
Q1118 Q2-02 DO YOU USE OR REFER TO DELAY LINES		3	0	3	6	8	0	7	15								
Q1119 Q2-03 DO YOU USE OR REFER TO MAGNETIC CORES		5	0	4	9	12	0	11	24								
Q1120 Q2-04 DO YOU USE OR REFER TO MAGNETIC DRUMS		1	0	1	3	3	0	3	6								
Q1121 Q2-05 DO YOU USE OR REFER TO MAGNETIC TAPES		4	0	4	8	6	0	6	9								
Q1122 Q2-06 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OR MEMORY SYSTEMS		7	4	6	8	16	5	17	21								
Q1123 Q2-07 DO YOU USE OR REFER TO WORD CAPACITY OF MEMORY SYSTEMS		8	2	7	12	20	5	19	29								
Q1124 Q2-08 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS		4	2	3	6	9	5	8	12								
Q1125 Q2-09 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES		1	0	1	3	4	0	4	9								
Q1126 Q3-01 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS, ANALOG-TO-DIGITAL (A/D) CONVERTERS, OR BOTH?		14	11	14	15	29	24	28	32								
Q1127 Q3-02 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT		1	2	1	1	1	0	2	0								
Q1128 Q3-03 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A)		1	0	1	1	1	0	1	0								

DIGITAL TO
ANALOG CONVERTERS

STORAGE DEVICES

REGISTERS

PCT MBRS ANSWRNG YES FOR 32x2 DAFSC GRPS

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AF HUMAN RESOURCES LABORATORY
AIR FORCE SYSTEMS COMMAND

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC 038 SPC 039 SPC 040 SPC 041 SPC 042 SPC 043 SPC 044 SPC 045

41129 03-04 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS	1	2	1	0	2	0	4	0
41130 03-05 DO YOU PERFORM SAMPLE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	2	1	0	0	6
41131 03-06 DO YOU PERFORM HOLD FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	1	1	0	0	3
41132 03-07 DO YOU PERFORM COMPARE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	1	1	0	0	3
41133 03-08 DO YOU PERFORM DIGITIZE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	1	1	0	0	3
41134 03-09 DO YOU PERFORM DON'T REMEMBER WHICH FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER	3	2	2	6	5	5	4	12
41135 03-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS	2	0	2	3	5	0	5	9
41136 03-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS	1	0	1	1	3	0	4	3
41137 03-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS	1	0	2	2	4	0	5	6
41138 03-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS	3	2	3	4	8	5	7	12
41139 03-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS	2	0	2	3	5	0	6	6
41140 03-01 DO YOU WORK WITH PHANTASTRON CIRCUITRY IN YOUR PRESENT JOB	1	0	1	1	0	0	0	0
41141 03-01 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER CIRCUITS	4	2	4	4	9	5	9	9
41142 03-02 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER SCHEMATIC DIAGRAMS	2	2	3	2	6	5	6	6
41143 03-03 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS	2	2	2	3	5	5	6	6
41144 03-01 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES	30	25	28	39	25	14	26	29
41145 03-02 DO YOU FABRICATE COAXIAL CABLES	41	34	39	51	36	19	38	41
41146 03-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS ON VISUAL READOUT SYSTEMS	38	40	40	29	61	43	66	56
41147 03-02 DO YOU PERFORM ANY TASKS ON MIXIE LIGHTS OR MIXIE LIGHT DECODER SYSTEMS	15	8	17	15	39	19	41	44
41148 03-03 DO YOU ANALYZE MIXIE LIGHT DECODER SYSTEMS USING BOOLEAN ALGEBRA	2	0	2	3	4	0	4	9
41149 03-01 DO YOU WORK WITH PHOTO TUBES IN YOUR PRESENT JOB	3	4	4	1	8	5	10	3
41150 03-01 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS	1	2	1	0	1	0	2	0
41151 03-02 DO YOU MEASURE EXCITATION, FREQUENCIES	0	0	0	0	0	0	0	0
41152 03-03 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIPS	0	0	0	0	0	0	0	0
41153 03-04 DO YOU USE OR REFER TO EXCITATION FREQUENCIES	0	2	0	0	0	0	0	0
41154 03-05 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE RELATIONSHIPS	0	0	0	0	0	0	0	0
41155 03-06 DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	1	2	1	0	1	0	2	0

PHOTO SENSITIVE DEVICES

SYNCHRONOUS VIBRATIONS
(CHOPPER CIRCUITS)

CABLE FABRICATION

SCHMITT TRIGGERS

PHANTASTRONS

INPUT/OUTPUT
DEVICES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC SPC SPC SPC SPC SPC SPC
036 039 040 041 042 043 044 045

11156 S3-U7 DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	1	2	1	0	1	0	2	0
11157 S3-U8 DO YOU USE ERROR SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	1	2	1	0	1	0	2	0
11158 S3-U9 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	1	2	1	0	1	0	1	0
11159 T1-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH INFRARED SYSTEMS	26	21	27	26	1	0	1	3
11160 T1-02 DO YOU INSPECT INFRARED SYSTEMS	24	23	24	26	1	0	0	3
11161 T1-03 DO YOU CLEAN INFRARED SYSTEMS	19	15	19	21	1	0	0	3
11162 T1-04 DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS	6	8	6	5	1	0	0	3
11163 T1-05 DO YOU OPERATE INFRARED SYSTEMS	25	21	25	25	1	0	0	3
11164 T1-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF INFRARED SYSTEMS	25	23	25	25	1	0	0	3
11165 T1-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED SYSTEMS	21	21	22	18	1	0	0	3
11166 T1-08 DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS	7	11	6	8	0	0	0	0
11167 T1-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS	24	23	25	23	1	0	0	3
11168 T1-10 DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS	5	8	5	4	0	0	0	0
11169 T1-11 DO YOU USE OR REFER TO FAR REGION	2	2	2	3	0	0	0	0
11170 T1-12 DO YOU USE OR REFER TO INTERMEDIATE REGION	2	2	2	3	0	0	0	0
11171 T1-13 DO YOU USE OR REFER TO NEAR REGION	2	4	2	3	0	0	0	0
11172 T1-14 DO YOU USE OR REFER TO MICRON	3	4	3	3	0	0	0	0
11173 T1-15 DO YOU USE OR REFER TO GRAY BODIES	3	8	2	3	0	0	0	0
11174 T1-16 DO YOU USE OR REFER TO BLACK BODIES	4	8	3	4	0	0	0	0
11175 T1-17 DO YOU USE OR REFER TO ABSORPTION	3	4	3	4	0	0	0	0
11176 T1-18 DO YOU USE OR REFER TO SCATTERING	3	2	2	5	0	0	0	0
11177 T1-19 DO YOU USE OR REFER TO ABSOLUTE ZERO	6	13	5	5	0	0	0	0
11178 T1-20 DO YOU PERFORM TASKS ON RLITZ	0	0	0	0	0	0	0	0
11179 T1-21 DO YOU PERFORM TASKS ON TARGET BUTTONS	1	0	1	0	1	0	1	0
11180 T1-22 DO YOU PERFORM TASKS ON ERECTOR LENSES	0	0	0	0	0	0	0	0
11181 T1-23 DO YOU PERFORM TASKS ON OCULAR LENSES	0	2	0	0	0	0	0	0
11182 T1-24 DO YOU PERFORM TASKS ON CORRECTION LENSES	0	0	0	0	0	0	0	0
11183 T1-25 DO YOU PERFORM TASKS ON FILTERS	1	2	2	1	0	0	0	0
11184 T1-26 DO YOU PERFORM TASKS ON SPHERICAL MIRRORS	0	2	0	0	0	0	0	0
11185 T1-27 DO YOU PERFORM TASKS ON PLANE MIRRORS	0	0	0	0	0	0	0	0
11186 T2-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH LASERS	0	0	0	0	0	0	0	0
11187 T2-02 DO YOU INSPECT LASER SYSTEMS	0	0	0	0	0	0	0	0
11188 T2-03 DO YOU CLEAN LASER SYSTEMS	0	0	0	0	0	0	0	0
11189 T2-04 DO YOU OPERATE LASER SYSTEMS	0	0	0	0	0	0	0	0
11190 T2-05 DO YOU OPERATE LASER SYSTEMS	0	0	0	0	0	0	0	0
11191 T2-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF LASER SYSTEMS	0	0	0	0	0	0	0	0

INFRARED

LASERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

SPC 038	SPC 039	SPC 040	SPC 041	SPC 042	SPC 043	SPC 044	SPC 045
DY=TSK							
11228	T3-09	DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME THE VARIOUS ELEMENTS OF MNST	0	0	0	1	0
11229	T3-10	DO YOU PERFORM TASKS ON FLOOD GUNS	0	0	0	0	0
11230	T3-11	DO YOU PERFORM TASKS ON WHITE GUNS	1	1	0	2	1
11231	T3-12	DO YOU PERFORM TASKS ON ATTACK GUNS	0	0	0	0	0
11232	T3-13	DO YOU PERFORM TASKS ON FRASE GUNS	0	0	0	1	0
11233	T3-14	DO YOU PERFORM TASKS ON STORAGE GRIDS	1	0	1	1	2
11234	U1-01	DO YOU PERFORM ANY PROGRAMMING IN YOUR PRESENT JOB?	15	17	16	9	36
TASKS							
11235	U1-02	DO YOU USE OR REFER TO DECIMAL SYSTEMS	7	8	8	5	19
11236	U1-03	DO YOU USE OR REFER TO PROGRAMS	8	9	4	6	22
11237	U1-04	DO YOU USE OR REFER TO HEX/DECIMAL SYSTEMS	4	2	4	7	10
11238	U1-05	DO YOU USE OR REFER TO 8-4-2-1 SYSTEMS	3	2	3	2	6
11239	U1-06	DO YOU USE OR REFER TO FOUR SYSTEMS	1	2	2	0	3
11240	U1-07	DO YOU USE OR REFER TO BINARY SYSTEMS	7	8	7	7	20
11241	U1-08	DO YOU USE OR REFER TO TIME-SHARING	3	2	3	4	7
11242	U1-09	DO YOU USE OR REFER TO DATA WORDS	11	13	13	7	28
11243	U1-10	DO YOU USE OR REFER TO ADDRESS WORDS	11	11	13	7	29
11244	U1-11	DO YOU USE OR REFER TO ADDRESS/SUBADDRESS	9	6	10	7	22
11245	U1-12	DO YOU USE OR REFER TO STEERING/INFORMATION	11	11	14	5	29
11246	U1-13	DO YOU USE OR REFER TO INFORMATION WORDS	9	11	10	4	23
11247	U1-14	DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING	4	2	5	3	10
11248	U1-15	DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING	3	6	4	1	9
11249	U1-16	DO YOU PERFORM TASKS ON INPUT DEVICES	6	6	6	3	15
11250	U1-17	DO YOU PERFORM TASKS ON STORAGE DEVICES	4	2	5	2	11
11251	U1-18	DO YOU PERFORM TASKS ON ARITHMETIC SECTIONS	2	2	3	2	7
11252	U1-19	DO YOU PERFORM TASKS ON CONTROL SECTIONS	4	4	4	5	2
11253	U1-20	DO YOU PERFORM TASKS ON OUTPUT DEVICES	4	6	5	3	12
11254	U1-21	DO YOU PERFORM TASKS ON POWER SUPPLIES	3	0	4	2	8
11255	U2-01	DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND ATTENUATION	12	11	12	14	8
11256	U2-02	DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS	0	0	1	0	1
11257	U2-03	DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DECIBELS	0	0	1	0	1

AF HUMAN RESOURCES LABORATORY
AIR FORCE SYSTEMS COMMAND

REPORTS ON THE FOLLOWING GROUPS WERE REQUESTED

CONTAINING	146 MEMBERS
CONTAINING	15 MEMBERS
CONTAINING	97 MEMBERS
CONTAINING	34 MEMBERS
CONTAINING	155 MEMBERS
CONTAINING	16 MEMBERS
CONTAINING	103 MEMBERS
CONTAINING	36 MEMBERS

6	359
6	360
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6	373

Output

	DUTY	SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
A	MATHEMATICS, DIRECT CURRENT, VOLTAGE, AND RESISTANCE	99	100	99	97	95	84	95	97
B	MULTIMETER USES, ALTERNATING CURRENT, INDUCTORS, AND INDUCTIVE CAPACITORS, CAPACITIVE REACTANCE, TRANSFORMERS, AND MAGNETISM	99	100	99	97	97	88	98	97
C	RCL CIRCUITS, SERIES AND PARALLEL RESONANCE (TIME CONSTANTS), AND FILTERS	88	73	90	88	37	56	36	31
D	COUPLING, SOLDERING, AND RELAYS	13	13	11	18	10	25	10	3
E	MICROPHONES, SPEAKERS, AND OSCILLOSCOPES	93	87	96	88	93	81	95	92
F	SEMICONDUCTOR DIODES, TRANSISTORS, AND TRANSISTOR AMPLIFIERS	12	13	9	18	83	69	83	86
G	SOLID STATE SPECIAL PURPOSE DEVICES, POWER SUPPLIES, AND OSCILLATORS	22	13	23	24	12	13	11	17
H	MULTIVIBRATORS, LIMITERS, CLAMPERS, AND ELECTRON TUBES	44	27	48	38	34	50	35	22
I	ELECTRON TUBE AMPLIFIERS AND CIRCUITS, SPECIAL PURPOSE ELECTRON TUBES, HETERODYNING, MODULATION,	2	0	1	6	6	6	5	8
J	AM SYSTEMS, FM SYSTEMS, AND NUMBERING SYSTEMS	1	0	0	3	68	75	68	64
K	LOGIC FUNCTIONS, BOOLEAN EQUATIONS, AND COUNTERS	27	27	22	41	73	75	73	72
L	TIMING CIRCUITS, USE OF SIGNAL GENERATORS, MOTORS, AND GENERATORS	34	33	34	32	12	25	12	6
M	METER MOVEMENTS, SATURABLE REACTORS, MAGNETIC AMPLIFIERS, AND WAVESHAPING CIRCUITS	36	40	37	29	28	56	25	22
N	SINGLE SIDEBAND SYSTEMS, PULSE MODULATION SYSTEMS, AND ANTENNAS	76	87	75	74	74	69	75	72
O	TRANSMISSION LINES, WAVEGUIDES AND CAVITY RESONATORS, AND MICROWAVE AMPLIFIERS AND OSCILLATORS	3	7	2	3	97	100	97	94
P	REGISTERS, STORAGE DEVICES, AND DIGITAL TO ANALOG CONVERTERS	1	0	0	3	89	94	88	89
Q	PHANTASTONS, SCHMITT TRIGGERS, AND CABLE FABRICATION	14	7	11	24	8	6	10	6
R	INPUT/OUTPUT DEVICES, PHOTO SENSITIVE DEVICES, AND SYNCHRONOUS VIBRATIONS	29	20	28	38	63	69	56	81
S	INFRARED, LASERS, AND DISPLAY TUBES	31	53	32	18	23	25	24	17
T	PROGRAMMING, DB AND POWER RATIOS	1	0	0	3	78	81	80	72
U		4	7	3	6	30	44	31	22

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	
	046	047	048	049	050	051	052	053		
A 1 A1-01 DO YOU USE AN INSTRUMENT, SUCH AS METER OR AN OSCILLOSCOPE, IN WHICH IT IS NECESSARY TO AMPLIFY OR	58	67	56	59	52	56	56	36		
A 2 A1-02 DO YOU USE A PUBLICATION, SUCH AS A TECHNICAL ORDER OR MAINTENANCE MANUAL, IN WHICH IT IS NECESSARY	38	33	38	41	12	6	13	11		MATHEMATICS
A 3 A1-03 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS.	42	27	42	50	4	4	7	6		
A 4 A1-04 DO YOU FIND THE SQUARE ROOT OF A QUANTITY.	3	0	2	9	4	0	5	3		
A 5 A1-05 DO YOU SOLVE FOR AN UNKNOWN QUANTITY.	27	33	28	24	5	6	5	3		
A 6 A1-06 DO YOU CONVERT NUMBERS TO LOGARITHMS.	5	13	4	3	1	0	2	0		
A 7 A1-07 DO YOU USE LOGARITHM TABLES IN ANY TYPE OF CALCULATIONS.	4	13	4	0	3	0	3	3		
A 8 A1-08 DO YOU SOLVE QUADRATIC EQUATIONS.	4	7	5	0	1	0	1	3		
A 9 A1-09 DO YOU USE THE NATURAL SYSTEM OF LOGARITHMS (THIS IS THE LOGARITHM SYSTEM WHICH USES THE NUMBER 2.718 AS	1	7	1	0	0	0	0	0		
A 10 A1-10 DO YOU WORK WITH VECTOR QUANTITIES, SUCH AS ADDING OR SUBTRACTING TWO VECTORS.	7	7	5	12	2	0	3	0		
A 11 A1-11 DO YOU WORK WITH TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT.	7	7	4	15	3	0	4	0		
A 12 A1-12 DO YOU DETERMINE AREAS OF PLANE FIGURES, SUCH AS AREAS OF CIRCLES OR TRIANGLES.	5	7	4	6	1	0	2	0		
A 13 A1-13 DO YOU SOLVE OR USE SIMULTANEOUS EQUATIONS.	5	7	5	6	1	0	2	0		
A 14 A1-14 DO YOU SOLVE OR USE PROPORTIONS.	15	13	13	21	8	4	10	3		
A 15 A2-01 DO YOU USE THE TERM VOLTAGE OR VOLT.	94	87	97	88	88	75	88	99		DIRECT CURRENT AND VOLTAGE
A 16 A2-02 DO YOU USE THE TERM ELECTROMOTIVE FORCE (EMF).	34	20	32	44	25	50	19	28		
A 17 A2-03 DO YOU USE THE TERM OHM.	92	87	94	88	88	81	84	94		
A 18 A2-04 DO YOU USE THE TERM DYNE.	3	7	3	3	6	25	3	4		
A 19 A2-05 DO YOU USE THE TERM AMPERE.	3	7	2	3	5	13	3	4		
A 20 A2-06 DO YOU USE THE TERM NEUTRON.	72	73	74	65	67	69	64	75		
A 21 A2-07 DO YOU USE THE TERM NEUTRON.	5	7	4	6	6	25	7	6		
A 22 A2-08 DO YOU USE THE TERM COULOMB.	8	7	5	18	4	25	7	6		
A 23 A2-09 DO YOU USE THE TERM PROTON.	5	7	5	6	6	25	4	4		
A 24 A2-01 DO YOU WORK WITH RESISTORS IN YOUR PRESENT JOB.	30	27	29	35	32	38	27	44		
A 25 A3-02 DO YOU INSPECT RESISTORS.	14	7	14	15	24	19	18	42		
A 26 A3-03 DO YOU CLEAN RESISTORS.	4	7	6	6	5	0	4	8		
A 27 A3-04 DO YOU ADJUST RESISTORS.	18	20	15	26	12	6	11	19		RESISTANCE
A 28 A3-05 DO YOU CHECK OHMIC VALUE OF RESISTORS.	32	27	31	35	25	38	20	31		
A 29 A3-06 DO YOU REMOVE OR REPLACE RESISTORS.	15	7	15	18	20	19	17	28		
A 30 A3-07 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS ON ANY TASKS IN YOUR PRESENT JOB.	9	0	6	21	1	0	2	0		
A 31 A3-08 DO YOU USE OR REFER TO RESISTOR SYMBOLS, SUCH AS FOR FILLED RESISTORS OR FOR TAPPED RESISTORS.	32	33	28	41	17	13	14	28		
A 32 A3-09 DO YOU IDENTIFY OR CLASSIFY THE RESISTORS YOU WORK WITH AS CARBON, FILLED WIRE, SLIDE TAP, PHOTOSTAT OR	21	20	19	26	12	19	10	17		

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
A 33 A3-10 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE THE OHMIC VALUE OF RESISTANCE.	10	13	7	15	16	19	12	28
A 34 A3-11 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE THE TOLERANCE OF RESISTORS.	6	7	6	12	14	19	9	25
A 35 A3-12 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE THE FAILURE RATE OF RESISTORS.	3	7	2	3	5	6	4	6
A 36 A3-13 DO YOU MAKE DECISIONS IN WHICH YOU MUST DETERMINE HOW TWO OR MORE BATTERIES MUST BE CONNECTED TOGETHER TO REPRESENT ANY OF THE FOLLOWING COMPONENTS: BATTERY, RESISTIVE CIRCUITS.	4	7	3	6	7	6	6	11
A 37 A3-14 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT ANY OF THE FOLLOWING COMPONENTS: BATTERY, RESISTIVE CIRCUITS.	38	40	37	38	34	31	30	47
A 38 A3-15 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES RESISTIVE CIRCUITS.	20	13	15	35	7	13	7	6
A 39 A3-16 DO YOU CALCULATE TOTAL CURRENT FOR SERIES RESISTIVE CIRCUITS.	14	13	11	21	7	13	7	6
A 40 A3-17 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES RESISTIVE CIRCUITS.	14	13	10	26	5	6	4	6
A 41 A3-18 DO YOU CALCULATE POWER DISSIPATION FOR SERIES RESISTIVE CIRCUITS.	10	0	8	18	5	6	5	6
A 42 A3-19 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES PARALLEL RESISTIVE CIRCUITS.	19	13	14	35	6	6	6	6
A 43 A3-20 DO YOU CALCULATE TOTAL CURRENT FOR SERIES PARALLEL RESISTIVE CIRCUITS.	13	13	11	18	6	6	6	6
A 44 A3-21 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES PARALLEL RESISTIVE CIRCUITS.	14	13	12	21	4	6	3	6
A 45 A3-22 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR SERIES PARALLEL RESISTIVE CIRCUITS.	13	7	12	18	5	6	4	6
A 46 A3-23 DO YOU CALCULATE POWER DISSIPATION FOR SERIES PARALLEL RESISTIVE CIRCUITS.	9	0	8	15	5	6	4	6
A 47 A3-24 DO YOU CALCULATE TOTAL RESISTANCE FOR PARALLEL RESISTIVE CIRCUITS.	17	13	12	32	5	6	5	6
A 48 A3-25 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RESISTIVE CIRCUITS.	11	13	8	18	5	6	5	6
A 49 A3-26 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR PARALLEL RESISTIVE CIRCUITS.	12	13	8	21	4	6	3	6
A 50 A3-27 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR PARALLEL RESISTIVE CIRCUITS.	11	7	9	18	4	6	3	6
A 51 A3-28 DO YOU CALCULATE POWER DISSIPATION FOR PARALLEL RESISTIVE CIRCUITS.	7	0	5	15	4	6	3	6
B 52 B1-01 DO YOU MEASURE RESISTANCE.	94	100	95	88	87	81	88	86
B 53 B1-02 DO YOU REPAIR AN OHMMETER.	1	0	2	0	1	0	2	0
B 54 B1-03 DO YOU MEASURE VOLTAGE.	95	93	98	88	85	69	87	86
B 55 B1-04 DO YOU REPAIR A VOLTMETER.	0	0	0	0	0	0	0	0
B 56 B1-05 DO YOU REPAIR AN AMMETER.	0	0	0	0	1	0	1	0
B 57 B1-06 DO YOU MEASURE CURRENT.	55	60	63	32	52	54	54	44
B 58 B1-07 DO YOU USE A MULTIMETER.	95	93	98	88	88	75	92	83

MULTIMETER USES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC SPC SPC SPC SPC SPC SPC
046 047 048 049 050 051 052 053

59 01-08 DO YOU DIRECTLY USE A QUANTITY OF CHARGE CALLED A COULOMB.	1	7	1	0	1	0	1	0
60 01-09 DO YOU READ SCHEMATICS.	94	87	97	88	83	81	83	86
61 02-01 DO YOU USE OR REFER THE TERM EFFECTIVE VOLTAGE (RMS).	31	13	29	44	28	13	26	42
62 02-02 DO YOU USE OR REFER THE TERM PEAK TO PEAK VOLTAGE.	18	0	15	32	27	13	29	28
63 02-03 DO YOU USE OR REFER THE TERM AVERAGE VOLTAGE (DC).	39	27	36	53	36	19	37	42
64 02-04 DO YOU USE OR REFER THE TERM WAVE LENGTH.	9	0	8	15	39	13	41	25
65 02-05 DO YOU USE OR REFER THE TERM FREQUENCY.	42	33	41	50	71	56	70	81
66 02-06 DO YOU USE OR REFER THE TERM INSTANTANEOUS VALUE.	7	0	5	15	7	0	5	17
67 03-01 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, CHOKES, OR CHOKE COILS IN YOUR PRESENT JOB.	16	20	18	12	8	19	8	8
68 03-02 DO YOU INSPECT INDUCTORS.	8	13	7	4	3	4	2	4
69 03-03 DO YOU CLEAN INDUCTORS.	1	7	1	0	1	4	0	0
70 03-04 DO YOU ADJUST INDUCTORS.	7	13	7	3	1	4	1	0
71 03-05 DO YOU REMOVE OR REPLACE INDUCTORS.	12	13	13	9	3	13	1	6
72 03-06 DO YOU USE OR REFER TO INDUCTANCE.	9	0	11	4	5	4	4	8
73 03-07 DO YOU USE OR REFER TO HENRIES.	3	0	3	4	5	4	4	6
74 03-08 DO YOU USE OR REFER TO INDUCTIVE REACTANCE.	5	0	5	4	4	4	4	3
75 03-09 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS.	1	0	1	0	1	0	2	0
76 03-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS.	1	0	2	0	1	0	2	0
77 03-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS.	1	0	2	0	1	0	1	0
78 03-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE	1	0	0	3	0	0	0	0
79 03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE	1	0	1	0	1	0	1	0
80 03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO	1	0	1	0	0	0	0	0
81 03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE	1	0	2	0	0	0	0	0
82 03-16 DO YOU CALCULATE INDUCTANCE FOR A PARTICULAR INDUCTOR USING FORMULAS.	3	0	4	0	0	0	0	0
83 03-17 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN SERIES.	3	0	4	3	1	0	1	3
84 03-18 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN PARALLEL.	3	0	4	3	1	0	1	3
85 03-19 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN SERIES-PARALLEL CIRCUITS.	3	0	3	3	2	0	2	3
86 03-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS.	5	0	5	4	3	0	2	4
87 03-21 DO YOU CALCULATE INDUCTIVE REACTANCE.	2	0	3	0	0	0	0	0

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CAPACITORS AND CAPACITIVE REACTANCE

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	046	047	048	049	050	051	052	053	
C 118 C1-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS.	12	13	11	15	1	0	2	0	
C 119 C1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO	9	0	9	12	1	0	2	0	
C 120 C1-29 DO YOU CALCULATE CAPACITIVE REACTANCE (VARIABLE).	10	0	10	15	0	0	0	0	
C 121 C1-30 DO YOU WORK WITH ROTOR-STATOR CAPACITORS	11	0	11	15	12	6	13	11	
C 122 C1-31 DO YOU WORK WITH COMPRESSION (TRIMMER) CAPACITORS.	2	0	3	0	1	0	1	0	
C 123 C1-32 DO YOU WORK WITH ELECTROLYTIC CAPACITORS (FIXED).	23	0	25	29	4	6	3	6	
C 124 C1-33 DO YOU WORK WITH PAPER CAPACITORS (FIXED).	1	0	0	6	2	0	1	4	
C 125 C1-34 DO YOU WORK WITH MICA CAPACITORS (FIXED).	4	0	2	12	1	0	1	3	
C 126 C1-35 DO YOU WORK WITH CERAMIC CAPACITORS (FIXED).	3	0	2	9	2	6	1	3	
C 127 C1-36 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF CAPACITORS.	15	20	18	6	5	13	6	0	
C 128 C2-01 DO YOU WORK WITH TRANSFORMERS ON YOUR PRESENT JOB.	38	7	41	41	5	0	4	11	
C 129 C2-02 DO YOU INSPECT TRANSFORMERS.	25	7	27	29	3	0	2	6	
C 130 C2-03 DO YOU CLEAN TRANSFORMERS.	8	7	8	9	1	0	0	3	
C 131 C2-04 DO YOU ADJUST TRANSFORMERS.	9	0	11	6	1	0	1	0	TRANSFORMERS
C 132 C2-05 DO YOU TROUBLESHOOT TRANSFORMERS.	37	13	39	41	4	0	3	8	
C 133 C2-06 DO YOU REMOVE OR REPLACE COMPLETE TRANSFORMERS.	31	7	33	35	2	0	1	6	
C 134 C2-07 DO YOU REMOVE OR REPLACE TRANSFORMER PARTS, SUCH AS THE PRIMARY WINDING.	0	0	0	0	0	0	0	0	
C 135 C2-08 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION AND MUTUAL INDUCTANCE (M).	0	0	0	0	0	0	0	0	
C 136 C2-09 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M.	0	0	0	0	0	0	0	0	
C 137 C2-10 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS.	1	0	0	3	0	0	0	0	
C 138 C2-11 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS.	5	0	4	9	1	0	0	3	
C 139 C2-12 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS.	1	0	0	6	1	0	1	0	
C 140 C2-13 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS.	1	0	0	3	0	0	0	0	
C 141 C2-14 DO YOU WORK WITH AUTOTRANSFORMERS.	12	0	12	15	3	0	2	6	
C 142 C2-15 DO YOU WORK WITH POWER TRANSFORMERS.	28	0	31	32	4	0	3	8	
C 143 C2-16 DO YOU WORK WITH AUDIO TRANSFORMERS.	2	0	2	3	3	0	3	6	
C 144 C2-17 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS.	1	0	1	3	3	0	3	3	
C 145 C2-18 DO YOU WORK WITH DON'T REMEMBER WHAT TYPE OF TRANSFORMER.	12	7	12	15	0	0	0	0	
C 146 C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE.	30	7	32	35	3	0	2	6	
C 147 C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE.	30	7	31	38	3	0	2	6	
C 148 C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES.	32	7	34	35	1	0	1	3	
C 149 C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR	6	0	6	9	0	0	0	0	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK											
	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	046	047	048	049	050	051	052	053				
C 150 C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN SYMBOLS FOR TRANSFORMERS.	14	0	13	21	1	0	1	0				
C 151 C2-24 DO YOU REFER TO THE BASIC TRANSFORMER SCHEMATIC SYMBOLS FOR TRANSFORMERS.	34	0	36	41	3	0	1	8				
C 152 C2-25 DO YOU REFER TO THE MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS.	21	0	25	21	1	0	0	6				
C 153 C2-26 DO YOU REFER TO THE MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS.	27	0	30	29	1	0	0	6				
C 154 C2-27 DO YOU REFER TO THE CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS.	27	0	32	26	3	0	1	8				
C 155 C2-28 DO YOU REFER TO THE AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS.	13	0	15	12	1	0	1	3				
C 156 C2-29 DO YOU REFER TO THE IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS.	19	0	23	18	1	0	1	3				
C 157 C2-30 DO YOU REFER TO THE COMBINATIONS OF THE ABOVE SCHEMATIC SYMBOLS FOR TRANSFORMERS.	24	7	27	24	2	0	1	6				
C 158 C2-31 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING TRANSFORMERS YOU WORK WITH.	10	0	9	18	3	0	2	6				
C 159 C2-32 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH.	3	0	2	6	1	0	1	0				
C 160 C2-33 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO.	5	0	4	12	1	0	1	0				
C 161 C2-34 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS.	12	0	11	21	3	0	2	6				
C 162 C2-35 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS.	5	0	6	6	1	0	1	0				
C 163 C2-36 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS.	3	0	2	6	1	0	1	0				
C 164 C2-37 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH 3 PHASE TRANSFORMERS.	10	13	7	15	1	0	1	3				
C 165 C2-38 DO YOU INSPECT 3 PHASE TRANSFORMERS.	3	0	2	9	1	0	0	3				
C 166 C2-39 DO YOU CLEAN OR LUBRICATE 3 PHASE TRANSFORMERS.	0	0	0	0	0	0	0	0				
C 167 C2-40 DO YOU ADJUST 3 PHASE TRANSFORMERS.	1	0	0	3	0	0	0	0				
C 168 C2-41 DO YOU TROUBLESHOOT 3 PHASE TRANSFORMERS.	7	0	5	15	1	0	0	3				
C 169 C2-42 DO YOU REMOVE OR REPLACE COMPLETE 3 PHASE TRANSFORMER.	5	0	4	12	1	0	0	3				
C 170 C2-43 DO YOU REMOVE OR REPLACE 3 PHASE TRANSFORMER PARTS, SUCH AS A WINDING.	0	0	0	0	0	0	0	0				
C 171 C3-01 DO YOU USE OR REFER TO PERMANENT MAGNETS.	2	3	15	49	5	6	6	0				
C 172 C3-02 DO YOU USE OR REFER TO TEMPORARY MAGNETS.	25	7	29	21	5	6	6	3				
C 173 C3-03 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS.	9	0	10	26	1	0	1	0				
C 174 C3-04 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS.	8	7	0	21	1	0	1	0				

MAGNETISM

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	046	047	048	049	050	051	052	053	
C 175 C3-05 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS.	19	0	21	21	1	0	1	0	
C 176 C3-06 DO YOU USE OR REFER TO RESIDUAL MAGNETISM.	22	13	22	26	1	6	1	0	
C 177 C3-07 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX.	69	47	75	62	5	0	6	3	
C 178 C3-08 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM.	6	0	7	6	1	0	2	0	
C 179 C3-09 DO YOU USE OR REFER TO THE DOMAIN THEORY OF MAGNETISM.	6	0	5	12	1	0	1	0	
C 180 C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION.	42	13	45	47	9	6	4	3	
C 181 C3-11 DO YOU USE OR REFER TO FLUX DENSITY.	27	7	30	26	1	0	2	0	
C 182 C3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT FOR MAGNETIC POLES, LIKE POLES REPEL AND UNLIKE POLES ATTRACT.	47	33	46	47	9	13	9	8	
C 183 C3-13 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE DIRECTION OF MAGNETIC FIELDS ABOUT STRAIGHT WIRES.	11	7	12	9	7	6	6	6	
C 184 C3-14 DO YOU USE THE LEFT THUMB RULE TO FIND THE NORTH POLE OF A CURRENT CARRYING COIL.	7	0	8	6	5	6	6	3	
D 185 D1-01 DO YOU WORK WITH RCL, LK, OR RCL CIRCUITS OR YOUR PRESENT JOB.	3	0	3	3	1	6	1	0	
D 186 D1-02 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	0	0	0	0	RCL CIRCUITS
D 187 D1-03 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	0	0	0	0	
D 188 D1-04 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	0	0	0	0	
D 189 D1-05 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	0	0	0	0	
D 190 D1-06 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	0	0	0	0	
D 191 D1-07 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	2	6	2	0	
D 192 D1-08 DO YOU USE OR REFER TO TRUE POWER (PT) WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	0	0	0	0	
D 193 D1-09 DO YOU USE OR REFER TO MAXIMUM POWER (PM) WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	1	0	1	0	
D 194 D1-10 DO YOU USE OR REFER TO AVERAGE POWER (PAVE) WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	0	0	0	0	
D 195 D1-11 DO YOU USE OR REFER TO APPARENT POWER (PA) WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	0	0	0	0	
D 196 D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	0	0	0	0	
D 197 D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH RCL CIRCUITS.	1	0	1	0	1	0	1	0	
D 198 D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS.	1	0	1	0	1	0	2	0	
D 199 D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH RCL CIRCUITS.	1	0	1	0	1	0	1	0	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
0 200 DI-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS.	1	0	1	0	2	0	3	0
0 201 DI-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	1	0	1	0
0 202 DI-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	1	0	1	0
0 203 DI-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS.	0	0	0	0	1	0	1	0
0 204 DI-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS.	1	0	1	3	1	0	1	0
0 205 DI-21 DO YOU DETERMINE VALUES OF TRIGONOMETRIC FUNCTIONS USING FORMULAS: SINE OF AN ANGLE = OPPOSITE SIDE	0	0	0	0	0	0	0	0
0 206 DI-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS.	0	0	0	0	1	0	1	0
0 207 DI-23 DO YOU CALCULATE TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS.	1	0	1	3	0	0	0	0
0 208 DI-24 DO YOU CALCULATE PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS.	1	0	1	0	0	0	0	0
0 209 DI-25 DO YOU CALCULATE TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS.	1	0	1	0	0	0	0	0
0 210 DI-26 DO YOU CALCULATE IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS.	1	0	1	0	0	0	0	0
0 211 DI-27 DO YOU CALCULATE APPARENT POWER (PA) FOR SERIES RCL CIRCUITS.	1	0	0	3	0	0	0	0
0 212 DI-28 DO YOU CALCULATE TRUE POWER (PT) FOR SERIES RCL CIRCUITS.	1	0	0	3	0	0	0	0
0 213 DI-29 DO YOU CALCULATE POWER FACTORS (PF) FOR SERIES RCL CIRCUITS.	1	0	0	3	0	0	0	0
0 214 DI-30 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RCL CIRCUITS.	1	0	0	3	0	0	0	0
0 215 DI-31 DO YOU CALCULATE IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS.	1	0	0	3	0	0	0	0
0 216 DI-32 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING THE ASSUMED VOLTAGE METHOD.	1	0	1	0	0	0	0	0
0 217 DI-33 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING OHM'S LAW.	0	0	0	0	0	0	0	0
0 218 DI-34 DO YOU CHECK CAPACITORS USING OHMMETERS.	4	0	4	4	1	0	1	0
0 219 DI-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION.	2	0	2	3	0	0	0	0
0 220 DI-36 DO YOU CHECK INDUCTORS USING OHMMETERS.	4	0	4	6	1	0	1	0
0 221 DI-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION.	1	0	1	0	0	0	0	0
0 222 DI-38 DO YOU USE OR REFER TO THE GENERAL RULE THAT $\theta = 90^\circ$, $\theta = 0^\circ$, AND $\theta = 180^\circ$ FOR RESONANT CIRCUITS.	0	0	0	0	1	0	1	0
0 223 DI-39 DO YOU CALCULATE RESONANT FREQUENCIES FOR RCL CIRCUITS.	0	0	0	0	1	0	1	0
0 224 DI-40 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE	1	0	1	0	1	0	1	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-75K

	SPC 046	SPC 097	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
D 225 01-41 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT	1	0	1	0	1	0	1	0
D 226 01-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 PERCENT OF THE PEAK	0	0	0	0	1	0	1	0
D 227 01-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO Q.	0	0	0	0	1	0	1	0
D 228 01-44 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT	0	0	0	0	0	0	0	0
D 229 02-01 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO SERIES OR PARALLEL RESONANCE CIRCUITS OR	3	0	1	9	3	19	1	0
D 230 02-02 DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS.	1	0	0	4	0	0	0	0
D 231 02-03 DO YOU WORK WITH, USE, OR REFER TO AVAILABLE VOLTAGE.	1	0	0	4	1	13	0	0
D 232 02-04 DO YOU WORK WITH, USE, OR REFER TO TRANSIENT INTERVALS.	1	0	0	4	0	0	0	0
D 233 02-05 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE	3	0	1	7	1	6	0	0
D 234 02-06 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS.	0	0	0	0	1	4	0	0
D 235 02-07 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUITS CURRENT OR COMPONENT VOLTAGES AFTER A	2	0	1	4	0	0	0	0
D 236 02-08 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT	1	0	0	4	0	0	0	0
D 237 02-09 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND	1	0	0	4	0	0	0	0
D 238 02-10 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR	1	0	0	3	1	4	0	0
D 239 03-01 DO YOU WORK WITH CIRCUITS USED AS FILTERS ON YOUR PRESENT JOB.	3	0	1	12	5	13	5	3
D 240 03-02 DO YOU INSPECT FILTER CIRCUITS.	0	0	0	0	2	0	3	0
D 241 03-03 DO YOU CLEAN FILTER CIRCUITS.	0	0	0	0	0	0	0	0
D 242 03-04 DO YOU ALIGN OR ADJUST FILTER CIRCUITS.	0	0	0	0	0	0	0	0
D 243 03-05 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT.	2	0	1	4	4	4	5	0
D 244 03-06 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER CIRCUITS.	1	13	0	0	0	0	0	0
D 245 03-07 DO YOU REMOVE OR REPLACE THE COMPLETE FILTER CIRCUIT.	1	0	1	3	4	4	4	3

PCT MBRS ANSWRG YES FOR J26X2 DAFSC GRPS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-7SK

QY-15K	SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
D 246 D3-08 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF FILTER CIRCUITS.	1	13	0	0	0	0	0	0
D 247 D3-09 DO YOU WORK ON LOW PASS FILTERS.	3	0	0	12	3	0	4	3
D 248 D3-10 DO YOU WORK ON HIGH PASS FILTERS.	3	0	0	12	2	0	2	3
D 249 D3-11 DO YOU WORK ON BANDPASS FILTERS.	2	0	0	9	2	6	2	0
D 251 D3-13 DO YOU WORK ON DON'T REMEMBER WHICH TYPE OF FILTER	1	0	0	6	1	6	1	0
D 250 D3-12 DO YOU WORK ON BAND-REJECT FILTERS.	1	0	1	0	1	0	2	0
D 252 D3-14 DO YOU WORK WITH L-SECTION FILTER CONFIGURATIONS.	1	0	0	6	1	0	1	0
D 253 D3-15 DO YOU WORK WITH T-SECTION FILTER CONFIGURATIONS.	1	0	0	6	1	0	1	0
D 254 D3-16 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATIONS.	1	0	0	6	1	0	1	0
D 255 D3-17 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF FILTER CONFIGURATIONS.	1	0	1	0	1	6	1	0
D 256 D3-18 ARE PARALLEL RESONANT CIRCUITS USED IN FILTERS YOU WORK WITH.	2	13	0	3	1	0	1	0
D 257 D3-19 ARE SERIES-PARALLEL CIRCUITS USED IN FILTERS YOU WORK WITH.	3	13	0	6	1	0	1	0
D 258 D3-20 ARE SERIES RESONANT CIRCUITS USED IN FILTERS YOU WORK WITH.	2	13	0	3	1	0	1	0
D 259 D3-21 ARE DON'T REMEMBER WHICH TYPE OF BASIC CIRCUIT USED IN FILTERS YOU WORK WITH.	1	0	1	0	2	6	2	0
D 260 D3-22 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC	2	13	0	3	0	0	0	0
E 261 E1-01 DO YOU WORK WITH COUPLING DEVICES ON YOUR PRESENT JOB.	11	20	6	15	20	44	20	8
L 262 E1-02 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED	5	7	2	12	3	13	2	0
E 263 E1-03 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED	6	7	4	12	12	31	12	6
E 264 E1-04 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED	9	7	7	15	1	0	1	0
E 265 E1-05 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THE RC COUPLING FUNCTIONS.	3	7	1	9	4	13	3	3
E 266 E1-06 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THE IMPEDANCE COUPLING FUNCTIONS.	5	7	3	9	14	31	14	8
E 267 E1-07 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THE TRANSFORMER COUPLING FUNCTIONS.	8	7	7	12	2	0	2	3
E 268 E1-08 DO YOU WORK WITH DIRECTLY COUPLED CIRCUITS.	6	0	6	9	2	0	3	0
E 269 E1-09 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS.	5	0	4	9	6	6	8	3
E 270 E1-10 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS.	3	0	3	6	3	6	3	3
E 271 E1-11 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS.	6	0	5	12	1	0	1	0
E 272 E1-12 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF COUPLING CIRCUIT.	2	0	2	3	6	31	5	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC SPC SPC SPC SPC SPC SPC
046 047 048 049 050 051 052 053

50 40 57 71 21 19 14 42

55 53 55 56 14 19 10 25

5 0 7 3 63 50 65 64

1 0 1 0 36 50 34 36

1 0 1 0 18 6 18 22

6 13 6 3 70 56 74 67

1 0 1 0 56 50 58 53

0 0 0 0 15 13 13 25

1 0 1 0 38 31 39 39

0 0 0 0 10 6 11 11

0 0 0 0 25 19 24 31

0 0 0 0 5 0 4 8

0 0 0 0 8 6 7 14

1 0 1 0 28 13 25 42

0 0 0 0 3 0 2 6

1 0 1 0 25 25 28 14

0 0 0 0 8 4 10 6

0 0 0 0 5 6 5 6

1 0 1 0 23 25 26 11

0 0 0 0 18 19 21 6

0 0 0 0 2 0 2 3

0 0 0 0 10 6 11 8

0 0 0 0 1 0 0 3

0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0

0 0 0 0 1 0 1 0

0 0 0 0 1 0 1 0

0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0

5 0 2 15 46 25 48 53

4 0 1 15 34 19 33 42

2 0 1 6 10 6 11 11

4 0 1 15 33 19 33 39

3 0 1 12 25 13 28 22

2 0 1 6 18 13 17 22

E 312 E3-18 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS SCHEMATIC

SYMBOLS FOR RELAYS

E 313 E3-19 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY

MEASURING RESISTANCE

F 314 F1-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS DEALING

WITH MICROPHONES

F 315 F1-02 DO YOU INSPECT MICROPHONES

F 316 F1-03 DO YOU CLEAN MICROPHONES

F 317 F1-04 DO YOU OPERATE MICROPHONES

F 318 F1-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE

CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT

F 319 F1-06 DO YOU TROUBLESHOOT DOWN TO MICROPHONE PARTS

F 320 F1-07 DO YOU REMOVE OR REPLACE COMPLETE MICROPHONES

F 321 F1-08 DO YOU REMOVE OR REPLACE MICROPHONE PARTS

F 322 F1-09 DO YOU PERFORM TASKS ON CARBON MICROPHONES

F 323 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES

F 324 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES

F 325 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES

F 326 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES

F 327 F2-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS DEALING

WITH SPEAKERS

F 328 F2-02 DO YOU INSPECT SPEAKERS

F 329 F2-03 DO YOU CLEAN SPEAKERS

F 330 F2-04 DO YOU OPERATE SPEAKERS

F 331 F2-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE

CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT

F 332 F2-06 DO YOU TROUBLESHOOT DOWN TO SPEAKER PARTS

F 333 F2-07 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS

F 334 F2-08 DO YOU REMOVE OR REPLACE SPEAKER PARTS

F 335 F2-09 DO YOU PERFORM ANY TASKS ON SPEAKER CONES

F 336 F2-10 DO YOU PERFORM ANY TASKS ON SPEAKER SPIDERS

F 337 F2-11 DO YOU PERFORM ANY TASKS ON SPEAKER FIELD COILS

F 338 F2-12 DO YOU PERFORM ANY TASKS ON SPEAKER VOICE COILS

F 339 F2-13 DO YOU PERFORM ANY TASKS ON SPEAKER PERMANENT MAGNETS

F 340 F2-14 DO YOU PERFORM ANY TASKS ON SPEAKER ELECTROMAGNETS

F 341 F2-15 DO YOU PERFORM ANY TASKS ON SPEAKER SOFT IRON CORES

F 342 F3-01 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB

CHECKS

F 343 F3-02 DO YOU USE OSCILLOSCOPES TO PERFORM OPERATIONAL

ADJUSTMENTS

F 344 F3-03 DO YOU USE OSCILLOSCOPES TO PERFORM ALIGNMENTS OR

ADJUSTMENTS

F 345 F3-04 DO YOU USE OSCILLOSCOPES TO TROUBLESHOOT ELECTRONIC

CIRCUITS

F 346 F3-05 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCY

F 347 F3-06 DO YOU USE OSCILLOSCOPES TO MEASURE TIME

PCT HRS ANSWRNG YES FOR 326X2 DAFSC GRPS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGSPC SPC SPC SPC SPC SPC SPC SPC
046 047 048 049 050 051 052 053

DY-TSK

G 374 G1-21 DO YOU USE OR REFER TO FORBIDDEN ENERGY LEVELS OF AN ORBITING ELECTRON 0 0 0 0 0 0 0 0

G 375 G1-22 DO YOU USE OR REFER TO VALENCE ELECTRONS (THOSE IN THE OUTERMOST SHELL) 1 0 1 0 0 0 0 0

G 376 G1-23 DO YOU USE OR REFER TO ATOMIC NUMBER (TOTAL NUMBER OF ELECTRONS IN ATOM) 1 0 1 0 0 0 0 0

G 377 G1-24 DO YOU USE OR REFER TO SYMBOLS ON THE DIODE WHICH INDICATE THE CATHODE END 8 0 6 15 1 6 0 3

G 378 G1-25 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON 1 0 0 3 1 6 0 0

G 379 G1-26 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE INCREASES, RESISTANCE DECREASES) 3 0 4 3 2 13 1 0

G 380 G1-27 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES, SUCH AS VOLTAGE - CURRENT 0 0 0 0 0 0 0 0

G 381 G1-28 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR FORWARD BIAS OR REVERSE BIAS IN SEMICONDUCTOR MATERIALS 8 0 7 15 2 0 2 3

G 382 G1-29 DO YOU USE OR REFER TO VALENCE BAND IN SEMICONDUCTOR MATERIALS 0 0 0 0 0 0 0 0

G 383 G1-30 DO YOU USE OR REFER TO FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS 0 0 0 0 0 0 0 0

G 384 G1-31 DO YOU USE OR REFER TO CONDUCTION BAND IN SEMICONDUCTOR MATERIALS 0 0 0 0 0 0 0 0

G 385 G1-32 DO YOU USE OR REFER TO COVALENT BONDING IN SEMICONDUCTOR MATERIALS 0 0 0 0 0 0 0 0

G 386 G1-33 DO YOU USE OR REFER TO ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS 1 0 1 0 0 0 0 0

G 387 G1-34 DO YOU USE OR REFER TO ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS 3 0 4 3 1 0 0 3

G 388 G1-35 DO YOU USE OR REFER TO DONOR IMPURITY IN SEMICONDUCTORS 0 0 0 0 0 0 0 0

G 389 G1-36 DO YOU USE OR REFER TO ACCEPTOR IMPURITY IN SEMICONDUCTORS 0 0 0 0 0 0 0 0

G 390 G1-37 DO YOU USE OR REFER TO P-TYPE SEMICONDUCTOR MATERIAL 4 0 4 6 1 6 0 0

G 391 G1-38 DO YOU USE OR REFER TO N-TYPE SEMICONDUCTOR MATERIAL 4 0 4 6 1 6 0 0

G 392 G1-39 DO YOU USE OR REFER TO MAJORITY CARRIERS IN SEMICONDUCTORS 1 0 2 0 0 0 0 0

G 393 G1-40 DO YOU USE OR REFER TO MINORITY CARRIERS IN SEMICONDUCTORS 1 0 2 0 0 0 0 0

G 394 G1-41 DO YOU USE OR REFER TO JUNCTION RECOMBINATION IN SEMICONDUCTORS 0 0 0 0 0 0 0 0

G 395 G1-42 DO YOU USE OR REFER TO DEPLETION REGION IN SEMICONDUCTORS 1 0 1 0 0 0 0 0

G 396 G1-43 DO YOU USE OR REFER TO RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL 1 0 0 3 0 0 0 0

TASK	GROUP SUMMARY	PERCENT MEMBERS PERFORMING
1. Identify the problem	100%	100%
2. Generate ideas	100%	100%
3. Evaluate ideas	100%	100%
4. Select a solution	100%	100%
5. Implement the solution	100%	100%
6. Evaluate the results	100%	100%

DT-15K

SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
046	047	048	049	050	051	052	053

G 387	G1-44 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES	1	0	1	3	9	0	4
G 388	G1-45 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS	0	0	0	0	0	0	0
G 389	G1-46 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION	1	0	1	3	0	0	0
G 400	G1-47 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS	0	0	0	0	0	0	0
G 401	G1-48 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT DIODE RATINGS	0	0	0	0	0	0	0
G 402	G1-49 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS	0	0	0	0	0	0	0
G 403	G1-50 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE DIODE RATINGS	2	0	2	3	0	0	0
G 404	G2-01 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB.	14	13	12	21	1	4	2
G 405	G2-02 DO YOU INSPECT TRANSISTORS	0	0	0	0	1	4	2
G 406	G2-03 DO YOU REMOVE OR REPLACE TRANSISTORS	1	0	2	0	1	4	0
G 407	G2-04 DO YOU CHECK TRANSISTORS USING AN INSTRUMENT	3	0	4	0	1	0	1
G 408	G2-05 DO YOU USE OR REFER TO EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS	3	0	4	0	1	4	0
G 409	G2-06 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS	2	0	3	0	1	4	0
G 410	G2-07 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC) RESISTANCE MEASUREMENTS	2	0	3	0	1	4	0
G 411	G2-08 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION	3	0	4	0	1	4	0
G 412	G2-09 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION	3	0	4	0	1	4	0
G 413	G2-10 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE TRANSISTOR STRUCTURE (COLLECTOR, BASE AND EMITTER)	1	0	1	0	1	4	0
G 414	G2-11 DO YOU USE OR REFER TO LEAKAGE CURRENT (ICBO) IN A TRANSISTOR	1	0	0	3	1	4	0
G 415	G2-12 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS	13	13	12	15	2	4	1
G 416	G2-13 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS Q1, Q2, Q3, ETC	10	13	8	15	2	4	1
G 417	G2-14 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION INFORMATION	1	0	1	0	1	4	0
G 418	G2-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT IS NORMALLY SIGNIFICANTLY GREATER THAN THE EMITTER CURRENT	2	0	1	6	1	4	0
G 419	G2-16 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR GAIN IN A TRANSISTOR	3	0	3	4	1	4	0
G 420	G2-17 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT (ICBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES	1	0	0	3	1	4	0
G 421	G2-18 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC CURVES	1	0	0	3	1	4	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGSPC SPC SPC SPC SPC SPC SPC SPC
046 047 048 049 050 051 052 053

DY-TSK

G 422 G2-19 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS 2 0 2 3 1 4 0 0

G 423 G2-20 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS 1 0 1 3 1 4 0 0

G 424 G2-21 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS 1 0 1 3 1 4 0 0

G 425 G2-22 DO YOU CALCULATE BETA TRANSISTOR GAINS 0 0 0 0 0 0 0 0

G 426 G2-23 DO YOU CALCULATE ALPHA TRANSISTOR GAINS 0 0 0 0 0 0 0 0

G 427 G2-24 DO YOU CALCULATE GAMMA TRANSISTOR GAINS 0 0 0 0 0 0 0 0

G 428 G3-01 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR 12 7 11 15 5 4 4 8

PRESENT JOB

G 429 G3-02 DO YOU INSPECT TRANSISTOR AMPLIFIERS 2 0 2 3 1 4 1 0

G 430 G3-03 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS 1 0 1 3 1 4 1 0

G 431 G3-04 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL 7 0 6 12 2 6 1 3

G 432 G3-05 DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS 5 7 5 3 1 4 1 0

G 433 G3-06 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER 12 7 13 9 4 0 3 8

G 434 G3-07 DO YOU REMOVE OR REPLACE AMPLIFIER COMPONENTS 0 0 0 0 1 0 1 0

G 435 G3-08 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN 1 0 1 0 0 0 0 0

COLLECTOR CURRENT WHICH RESULTS FROM A CHANGE IN BASE

G 436 G3-09 DO YOU USE OR REFER TO (COMMON EMITTER) THE 0 0 0 0 0 0 0 0

CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN

G 437 G3-10 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN 0 0 0 0 0 0 0 0

COLLECTOR VOLTAGE WHICH RESULTS FROM A CHANGE IN BASE

G 438 G3-11 DO YOU USE OR REFER TO (COMMON EMITTER) THE 0 0 0 0 1 0 1 0

CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN

G 439 G3-12 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN 0 0 0 0 0 0 0 0

BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL

G 440 G3-13 DO YOU USE OR REFER TO (COMMON EMITTER) THE 0 0 0 0 0 0 0 0

CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN

G 441 G3-14 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR 0 0 0 0 0 0 0 0

CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A

G 442 G3-15 DO YOU USE OR REFER TO THE OPERATING POINT Q 0 0 0 0 0 0 0 0

(QUIESCENT POINT) FOR A TRANSISTOR

G 443 G3-16 DO YOU CALCULATE THE SPECIFIC QUIESCENT POINT FOR A 0 0 0 0 0 0 0 0

PARTICULAR TRANSISTOR

G 444 G3-17 DO YOU MEASURE VOLTAGE GAIN USED IN THE COMMON 3 0 3 4 1 6 1 0

EMITTER CONFIGURATION

G 445 G3-18 DO YOU MEASURE CURRENT GAIN USED IN THE COMMON 1 0 1 3 1 4 1 0

EMITTER CONFIGURATION

G 446 G3-19 DO YOU MEASURE POWER GAIN USED IN THE COMMON 1 0 1 0 2 4 2 0

EMITTER CONFIGURATION

G 447 G3-20 DO YOU CALCULATE THE VOLTAGE GAIN FOR SPECIFIC TRAN- 0 0 0 0 0 0 0 0

SISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE

TRANSISTOR
AMPLIFIERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

07-TSK

	SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
6 448 63-21 DO YOU CALCULATE THE CURRENT GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE	0	0	0	0	0	0	0	0
6 449 63-22 DO YOU CALCULATE THE POWER GAIN FOR A SPECIFIC TRANSISTOR USING A FORMULA THAT IS, DO YOU MULTIPLY THE	0	0	0	0	0	0	0	0
6 450 63-23 DO YOU NEED TO KNOW THAT MORE COLLECTOR CURRENT IS GENERATED WITH LESS COLLECTOR VOLTAGE AS TEMPERATURE	0	0	0	0	0	0	0	0
6 451 63-24 DO YOU COMPUTE THE STATIC OPERATING POINT (Q) OF A TRANSISTOR AT DIFFERENT TEMPERATURES	0	0	0	0	0	0	0	0
6 452 63-25 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	3	0	2	9	1	6	0	0
6 453 63-26 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH SELF-	3	0	3	6	1	6	0	0
6 454 63-27 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	4	0	3	9	1	6	0	0
6 455 63-28 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	5	0	4	9	1	6	0	0
6 456 63-29 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	5	0	4	9	1	6	0	0
6 457 63-30 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	3	0	2	6	1	6	0	0
6 458 63-31 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM EMITTER (SWAMPING) RESISTOR STABILIZATION	3	0	3	3	1	6	0	0
6 459 63-32 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM SELF-BIAS STABILIZATION	2	0	3	0	1	6	0	0
6 460 63-33 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THERMISTOR STABILIZATION	4	0	5	3	1	6	0	0
6 461 63-34 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM FORWARD BIAS DIODE STABILIZATION	3	0	4	3	1	6	0	0
6 462 63-35 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM REVERSE BIAS DIODE STABILIZATION	3	0	4	3	1	6	0	0
6 463 63-36 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM DOUBLE DIODE STABILIZATION	2	0	3	0	1	6	0	0
6 464 63-37 DO YOU IDENTIFY AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS	0	0	0	0	1	0	1	0
6 465 63-38 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF AMPLITUDE DISTORTION	1	0	1	0	1	6	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC SPC SPC SPC SPC SPC SPC
046 047 048 049 050 051 052 053

G 466 G3-J9 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS	0	0	0	0	1	6	1	0
G 467 G3-J0 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS	0	0	0	0	1	6	1	0
G 468 G3-J1 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF PHASE DISTORTION	0	0	0	0	1	6	0	0
G 469 G3-J2 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF FREQUENCY DISTORTION	0	0	0	0	1	6	0	0
G 470 G3-J3 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR	1	0	1	0	1	0	1	0
G 471 G3-J4 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS	1	0	2	0	1	6	1	0
G 472 G3-J5 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS	1	0	2	0	1	6	1	0
G 473 G3-J6 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	1	0	2	0	2	6	2	0
G 474 G3-J7 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS	1	0	1	0	1	6	0	0
G 475 G3-J8 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS	1	0	2	0	1	6	1	0
G 476 G3-J9 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS	1	0	1	0	1	6	1	0
H 477 H1-C0 DO YOU USE OR REFER TO VARACTORS	1	0	0	3	3	6	1	6
H 478 H1-C2 DO YOU USE OR REFER TO TUNNEL DIODES	2	0	0	9	3	6	1	6
H 479 H1-C3 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTORS (FET)	6	0	7	6	2	0	1	6
H 480 H1-U4 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTORS	4	7	1	12	2	0	1	6
H 481 H1-U5 DO YOU USE OR REFER TO ZENER DIODES	21	7	21	29	5	6	5	6
H 482 H1-C6 DO YOU USE OR REFER TO INTEGRATED CIRCUITS	34	20	35	38	14	38	12	8
H 483 H2-C1 IN YOUR PRESENT JOB DO YOU WORK WITH POWER SUPPLIES	15	13	16	12	23	31	23	19
H 484 H2-02 DO YOU INSPECT POWER SUPPLIES	4	0	5	3	13	19	13	11
H 485 H2-03 DO YOU CLEAN POWER SUPPLIES	0	0	0	0	4	0	2	11
H 486 H2-04 DO YOU ALIGN OR ADJUST POWER SUPPLIES	1	0	2	0	3	6	2	3
H 487 H2-05 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL	10	13	9	12	12	31	10	11
H 488 H2-06 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS	10	7	11	6	6	6	8	3
H 489 H2-07 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES	12	0	15	9	21	19	23	17
H 490 H2-08 DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS	3	7	4	0	2	0	2	3
H 491 H2-09 DO YOU WORK WITH HALF-WAVE RECTIFIERS	3	0	3	3	3	6	2	3
H 492 H2-10 DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS	3	0	3	3	3	6	2	3
H 493 H2-11 DO YOU WORK WITH BRIDGE RECTIFIERS	5	7	6	3	3	6	2	6
H 494 H2-12 DO YOU WORK WITH THREE-PHASE RECTIFIERS	1	0	2	0	3	6	2	3
H 495 H2-13 DO YOU USE OR REFER TO INPUT VOLTAGE	9	7	8	12	8	6	8	11
H 496 H2-14 DO YOU USE OR REFER TO INPUT FREQUENCY	4	7	2	9	6	6	6	8
H 497 H2-15 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGE	3	0	4	3	4	6	6	8
H 498 H2-16 DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGE	5	0	5	9	5	6	5	6
H 499 H2-17 DO YOU USE OR REFER TO RIPPLE AMPLITUDE	1	0	1	3	1	6	1	0
H 500 H2-18 DO YOU USE OR REFER TO RIPPLE FREQUENCY	1	0	0	3	2	6	2	0

SOLID-STATE
SPECIAL PURPOSE
DEVICES

POWER SUPPLIES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-75K

[illegible]

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

SPC SPC SPC SPC SPC SPC SPC SPC
U46 U47 U48 U49 U50 U51 U52 U53

0Y-TSK

H 534 H3-23 DO YOU WORK WITH SHUNT MARTLEY SINUSOIDAL OSCILLATORS
H 535 H3-24 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS
H 536 H3-25 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS
H 537 H3-26 DO YOU WORK WITH BUTLER SINUSOIDAL OSCILLATORS
H 538 H3-27 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF

OSCILLATORS

I 539 11-01 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB
I 540 11-02 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS
I 541 11-03 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING

CIRCUITS

I 542 11-04 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS
I 543 11-05 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING

CIRCUITS

I 544 11-06 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING
I 545 11-07 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR

SHAPING CIRCUITS

I 546 11-08 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING
I 547 11-09 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK

CIRCUITS

I 548 11-10 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC
I 549 11-11 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN

CRYSTALS

I 550 11-12 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN DON'T
I 551 11-13 DO YOU WORK WITH ASTABLE MULTIVIBRATORS

REMEMBER WHICH TYPE OF

I 552 11-14 DO YOU WORK WITH MONOSTABLE MULTIVIBRATORS
I 553 11-15 DO YOU WORK WITH BISTABLE MULTIVIBRATORS
I 554 11-16 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE

MULTIVIBRATORS

I 555 12-01 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR
I 556 12-02 DO YOU WORK WITH SERIES DIODE LIMITERS

PRESENT JOB

I 557 12-03 DO YOU WORK WITH SHUNT DIODE LIMITERS
I 558 12-04 DO YOU WORK WITH LIMITERS WITH BIAS

REMEMBER WHICH TYPE OF

I 559 12-05 DO YOU WORK WITH ZENER DIODE LIMITERS
I 560 12-06 DO YOU WORK WITH TRANSISTOR LIMITERS
I 561 12-07 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF LIMITERS

REMEMBER WHICH TYPE OF

I 562 12-08 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS
I 563 12-09 DO YOU WORK WITH DIODE CLAMPING CIRCUITS WITH BIAS
I 564 12-10 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF CLAMPING

CIRCUIT

I 565 13-01 IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH
I 566 13-02 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD

CONTAINS ELECTRON TUBES

I 567 13-03 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD

ELECTRON TUBES

I 568 13-04 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD

ELECTRON TUBES

I 569 13-05 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD

ELECTRON TUBES

I 570 13-06 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD

ELECTRON TUBES

I 571 13-07 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD

ELECTRON TUBES

I 572 13-08 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD

ELECTRON TUBES

I 573 13-09 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD

ELECTRON TUBES

I 574 13-10 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD

ELECTRON TUBES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
0Y-TSK								
I 598 I3-34 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER GAIN	0	0	0	0	0	0	0	0
I 599 I3-35 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER	0	0	0	0	0	0	0	0
EFFICIENCY								
I 600 I3-36 DO YOU USE TEST TUBE CHECKERS TO DETERMINE ELECTRON	0	0	0	0	0	0	0	0
TUBE AMPLIFIER GAIN								
I 601 I3-37 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE	0	0	0	0	1	0	1	0
AMPLIFIER GAIN								
I 602 I3-38 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE	0	0	0	0	0	0	0	0
AMPLIFIER GAIN								
I 603 I3-39 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE	0	0	0	0	0	0	0	0
ELECTRON TUBE AMPLIFIER GAIN								
I 604 I3-40 DO YOU CALCULATE ANY ELECTRON TUBE CAPACITANCES SUCH	0	0	0	0	0	0	0	0
AS INPUT CAPACITANCE								
I 605 I3-41 DO YOU USE OR REFER TO TUBE SOCKET NOTATION	0	0	0	0	0	0	0	0
I 606 I3-42 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS	0	0	0	0	0	0	0	0
I 607 I3-43 DO YOU USE OR REFER TO THE TYPE OF MATERIAL OR THE	0	0	0	0	0	0	0	0
OPERATING TEMPERATURE OF THE EMITTING SURFACE IN THE								
I 608 I3-44 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL	0	0	0	0	0	0	0	0
SUCH AS MANUALS OR CHARTS								
J 609 J1-01 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS	0	0	0	0	0	0	0	0
IN YOUR PRESENT JOB								
J 610 J1-02 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON	0	0	0	0	0	0	0	0
TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER								
J 611 J1-03 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS	0	0	0	0	0	0	0	0
J 612 J1-04 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	0	0	0	0	0	0	0	0
J 613 J1-05 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED	0	0	0	0	0	0	0	0
AMPLIFIERS								
J 614 J1-06 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED	0	0	0	0	0	0	0	0
AMPLIFIERS								
J 615 J1-07 DO YOU TROUBLESHOOT OR REPAIR DON'T KNOW WHICH TYPE	0	0	0	0	0	0	0	0
OF AMPLIFIER								
J 616 J2-01 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD	0	0	0	0	0	0	0	0
CATHODE)								
J 617 J2-02 DO YOU WORK WITH CATHODE-RAY TUBES	1	0	0	3	3	4	3	3
J 618 J2-03 DO YOU USE OR REFER TO THE CHARACTERISTICS OF BEAM	0	0	0	0	0	0	0	0
POWER TUBES								
J 619 J2-04 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH BEAM	0	0	0	0	0	0	0	0
POWER TUBES ARE USED								
J 620 J2-05 DO YOU USE OR REFER TO THE CHARACTERISTICS OF	0	0	0	0	0	0	0	0
THYRATRONS								
J 621 J2-06 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH	0	0	0	0	0	0	0	0
THYRATRONS ARE USED								
J 622 J2-07 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF	1	0	0	3	3	0	2	4
ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)								
J 623 J2-08 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF	1	0	0	3	3	0	2	6
ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES								

SPECIAL PURPOSE
ELECTRON TUBES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		DY-15K																			
		SPC		SPC		SPC		SPC		SPC		SPC		SPC		SPC		SPC		SPC	
		046		047		048		049		050		051		052		053					
J 624	J2-09 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES	1	0	0	0	3	1	0	1	0	1	0	1	3							
J 625	J2-10 DO YOU USE OR REFER TO PHOSPHOR SCREENS	1	0	0	0	3	4	0	0	4	0	4	4	6							
J 626	J2-11 DO YOU USE OR REFER TO AQUADAG COATINGS	0	0	0	0	0	2	0	2	3	0	2	3	3							
J 627	J2-12 DO YOU USE OR REFER TO ELECTRON OPTICS	0	0	0	0	0	1	0	1	0	1	0	1	0							
J 628	J2-13 DO YOU USE OR REFER TO PERSISTENCE	0	0	0	0	0	3	0	3	0	3	3	3	3							
J 629	J2-14 DO YOU USE OR REFER TO DECAY TIMES	0	0	0	0	0	3	0	3	0	3	3	3	3							
J 630	J2-15 DO YOU USE OR REFER TO FLUORESCENCE	0	0	0	0	0	5	0	5	0	5	0	5	6							
J 631	J2-16 DO YOU USE OR REFER TO PHOSPHORESCENCE	0	0	0	0	0	5	0	5	0	5	0	5	6							
J 632	J3-01 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB	0	0	0	0	0	65	75	65	75	65	61	61								
J 633	J3-02 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS	0	0	0	0	0	7	31	5	3	31	5	3								
J 634	J3-03 DO YOU PERFORM TASKS ON FREQUENCY MIXERS	0	0	0	0	0	8	31	6	3	31	6	3								
J 635	J3-04 DO YOU USE OR REFER TO THE HETERODYNING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	14	25	13	14	25	13	14								
J 636	J3-05 DO YOU PERFORM TASKS ON REACTANCE MODULATORS	0	0	0	0	0	3	19	2	0	3	19	2	0							
J 637	J3-06 DO YOU PERFORM TASKS ON MODULATED OSCILLATORS	0	0	0	0	0	3	13	3	0	3	13	3	0							
K 638	K1-01 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB	0	0	0	0	0	61	56	61	61	56	61	61								
K 639	K1-02 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	52	50	51	56	51	56	56								
K 640	K1-03 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	15	4	15	22	4	15	22								
K 641	K1-04 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	14	4	17	4	17	4	17								
K 642	K1-05 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	60	56	60	61	56	60	61								
K 643	K1-06 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE COMPONENTS	0	0	0	0	0	25	31	27	17	31	27	17								
K 644	K1-07 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	63	56	61	69	56	61	69								
K 645	K1-08 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE COMPONENTS	0	0	0	0	0	26	36	29	11	36	29	11								
K 646	K1-09 DO YOU PERFORM TASKS ON RF OSCILLATORS	0	0	0	0	0	3	13	2	0	3	13	2	0							
K 647	K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS	0	0	0	0	0	7	25	6	3	7	25	6	3							
K 648	K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS	0	0	0	0	0	5	19	4	3	5	19	4	3							
K 649	K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS	0	0	0	0	0	12	25	11	8	12	25	11	8							
K 650	K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS	0	0	0	0	0	3	13	2	0	3	13	2	0							
K 651	K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS	0	0	0	0	0	4	13	4	0	4	13	4	0							
K 652	K1-15 DO YOU PERFORM TASKS ON DETECTORS	0	0	0	0	0	3	4	3	0	3	4	3	0							
K 653	K1-16 DO YOU PERFORM TASKS ON DON'T REMEMBER WHICH AM STAGE TRANSMITTERS	0	0	0	0	0	0	3	6	2	3	6	2	3							
K 654	K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS	0	0	0	0	0	4	13	4	0	4	13	4	0							
K 655	K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS	0	0	0	0	0	7	19	4	11	7	19	4	11							
K 656	K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS	0	0	0	0	0	44	50	45	39	44	50	45	39							
K 657	K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS	0	0	0	0	0	35	36	36	31	35	36	36	31							
K 658	K1-21 DO YOU USE OR REFER TO 2ND HARMONIC DISTORTION	0	0	0	0	0	4	6	5	0	4	6	5	0							
K 659	K1-22 DO YOU USE OR REFER TO BANDPASS DISTORTION	0	0	0	0	0	2	6	2	0	2	6	2	0							
K 660	K1-23 DO YOU USE OR REFER TO SQUARE LAW DISTORTION	0	0	0	0	0	1	6	1	0	1	6	1	0							

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
K 661 K1-24 DO YOU USE OR REFER TO CO-CHANNEL INTERFERENCE	0	0	0	0	0	13	15	8
K 662 K1-25 DO YOU USE OR REFER TO IMAGE FREQUENCIES IN RECEIVERS	0	0	0	0	5	6	6	3
K 663 K1-26 DO YOU USE OR REFER TO SIGNAL TO IMAGE RATIOS OR IMAGE REJECTION RATIOS	0	0	0	0	7	19	6	6
K 664 K1-27 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM TRANSMITTER SCHEMATIC DIAGRAMS	0	0	0	0	16	19	17	11
K 665 K1-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM RECEIVER SCHEMATIC DIAGRAMS	0	0	0	0	17	19	18	11
K 666 K2-01 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB	0	0	0	0	23	31	22	22
K 667 K2-02 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	19	31	18	14
K 668 K2-03 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	4	6	4	3
K 669 K2-04 DO YOU ALIGN FM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	2	0	2	3
K 670 K2-05 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	22	25	22	19
K 671 K2-06 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS	0	0	0	0	10	25	9	6
K 672 K2-07 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	21	25	21	19
K 673 K2-08 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS	0	0	0	0	8	13	9	6
K 674 K2-09 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS	0	0	0	0	1	6	1	0
K 675 K2-10 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS	0	0	0	0	1	6	0	0
K 676 K2-11 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)	0	0	0	0	1	6	1	0
K 677 K2-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS	0	0	0	0	5	13	6	0
K 678 K2-13 DO YOU PERFORM TASKS ON RF AMPLIFIERS	0	0	0	0	3	6	4	0
K 679 K2-14 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS	0	0	0	0	2	13	1	0
K 680 K2-15 DO YOU PERFORM TASKS ON IF AMPLIFIERS	0	0	0	0	1	6	1	0
K 681 K2-16 DO YOU PERFORM TASKS ON LIMITERS	0	0	0	0	1	6	0	0
K 682 K2-17 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS	0	0	0	0	1	6	0	0
K 683 K2-18 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS	0	0	0	0	6	19	6	3
K 684 K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS	0	0	0	0	6	19	6	3
K 685 K3-01 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS	7	0	4	18	3	13	2	0
K 686 K3-02 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS	19	20	14	32	9	25	7	8
K 687 K3-03 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS	5	0	4	9	3	13	2	0
K 688 K3-04 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS	4	0	3	9	2	6	2	0
K 689 K3-05 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS	16	27	10	26	8	19	6	8
K 690 K3-06 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS	4	0	2	12	2	12	2	0
K 691 K3-07 DO YOU ADD BINARY NUMBERS TO GET A SUM	16	27	11	26	4	13	3	3
K 692 K3-08 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD	4	0	2	12	3	13	2	0
K 693 K3-09 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD	8	13	3	18	3	13	2	0

NUMBERING
SYSTEMS

FM SYSTEMS

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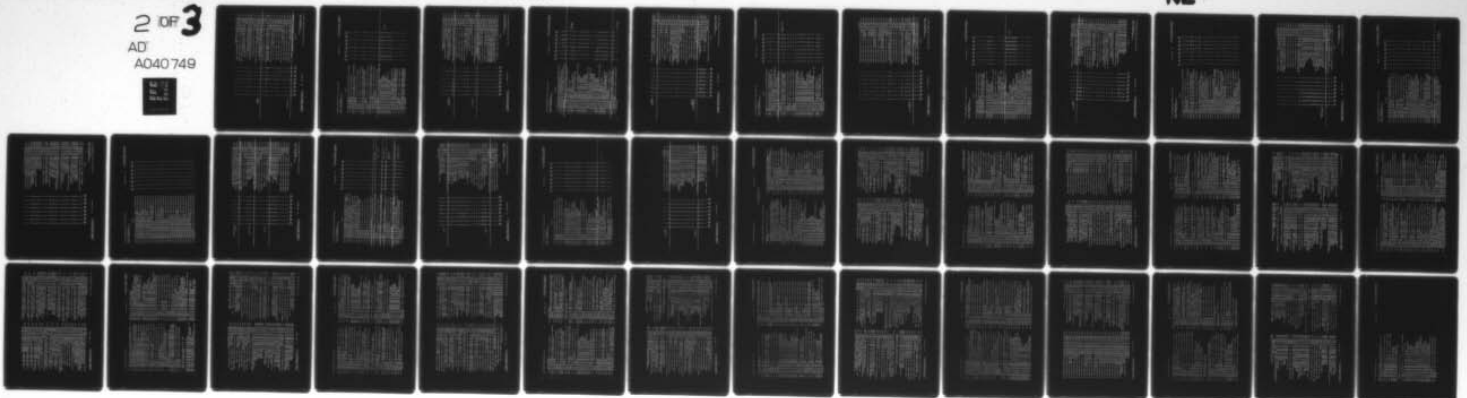
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PCT MBRS ANSWRNG YES FOR 326X2 DAFSC GRPS

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AF HUMAN RESOURCES LABORATORY
AIR FORCE SYSTEMS COMMAND

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC SPC SPC SPC SPC SPC SPC
046 047 048 049 050 051 052 053

K 699 K3-10 DO YOU ADD SOCIAL NUMBERS TO GET A SUM	26	27	24	32	3	6	1	0
L 695 L1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS	26	27	24	32	3	6	1	0
L 696 L1-02 DO YOU CONSTRUCT TRUTH TABLES FOR AND LOGIC SYMBOLS	10	27	6	15	1	0	1	0
OR GATES								
L 697 L1-03 DO YOU CONSTRUCT TRUTH TABLES FOR OR LOGIC SYMBOLS	10	20	6	15	1	0	1	0
OR GATES								
L 698 L1-04 DO YOU CONSTRUCT TRUTH TABLES FOR AND OR LOGIC	9	20	6	12	1	0	1	0
SYMBOLS WITH STATE INDICATORS								
L 699 L1-05 DO YOU CONSTRUCT TRUTH TABLES FOR EXCLUSIVE OR LOGIC	10	20	6	15	1	0	1	0
SYMBOLS OR GATES								
L 700 L1-06 DO YOU USE OR REFER TO TRUTH TABLES FOR AND LOGIC	20	13	19	26	2	0	2	3
SYMBOLS OR GATES								
L 701 L1-07 DO YOU USE OR REFER TO TRUTH TABLES FOR OR LOGIC	20	13	19	26	2	0	2	3
SYMBOLS OR GATES								
L 702 L1-08 DO YOU USE OR REFER TO TRUTH TABLES FOR AND OR OR	16	7	16	18	2	0	2	3
LOGIC SYMBOLS WITH STATE INDICATORS								
L 703 L1-09 DO YOU USE OR REFER TO TRUTH TABLES FOR EXCLUSIVE OR	14	7	13	21	1	0	2	0
LOGIC SYMBOLS								
L 704 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR AND GATES	23	13	21	32	2	6	2	0
L 705 L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR OR GATES	23	13	21	32	2	6	2	0
L 706 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR AND OR NOR	23	13	22	32	2	6	2	0
GATES								
L 707 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR EXCLUSIVE	16	0	15	24	1	0	2	0
OR GATES								
L 708 L2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS	3	0	0	12	1	6	1	0
RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC								
L 709 L2-02 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED	1	0	0	3	1	0	1	0
TRANSISTOR LOGIC (DCTL) CIRCUITS								
L 710 L2-03 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC	2	0	2	3	1	0	1	0
(CML) CIRCUITS								
L 711 L2-04 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN	1	0	1	0	1	0	1	0
EQUATIONS								
L 712 L2-05 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES	7	0	5	15	1	0	1	0
L 713 L2-06 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE	3	0	3	6	1	0	2	0
PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS								
L 714 L2-07 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN	5	0	4	9	1	0	2	0
ALGEBRA								
L 715 L2-08 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT	3	0	1	12	1	6	1	0
COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES								
L 716 L2-09 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE	3	0	3	3	1	6	1	0
LOGIC (CML) CIRCUITS								
L 717 L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF	9	0	6	21	1	6	1	0
MORE THAN ONE GATE								
L 718 L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL	1	0	1	3	1	0	1	0
HALF OR FULL ADDER LOGIC DIAGRAMS								

BOOLEAN
EQUATIONS

LOGIC FUNCTIONS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

		SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
		046	047	048	049	050	051	052	053
L 749 L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS		3	0	3	4	2	19	0	0
L 750 L3-18 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS		1	0	0	3	0	0	0	0
L 751 L3-19 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENT- PULSES FOR SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE		0	0	0	0	1	6	0	0
L 752 L3-20 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR OTHER TYPES OF COUNTERS		1	0	1	0	1	6	0	0
L 753 L3-21 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS		0	0	0	0	0	0	0	0
L 754 L3-22 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES		0	0	0	0	1	0	1	0
L 755 L3-23 DO YOU DETERMINE THE APPROPRIATE AND GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT		0	0	0	0	1	0	1	0
M 756 M1-01 DO YOU WORK WITH SAWTOOTH-WAVE GENERATORS		3	0	4	3	0	0	0	0
M 757 M1-02 DO YOU WORK WITH TRIANGULAR-WAVE GENERATORS		0	0	0	0	0	0	0	0
M 758 M1-03 DO YOU WORK WITH PULSED OSCILLATORS WITH REGENERATIVE FEEDBACK		4	0	5	3	1	0	1	0
M 759 M1-04 DO YOU WORK WITH PULSED OSCILLATORS WITHOUT REGENERATIVE FEEDBACK		3	0	4	3	0	0	0	0
M 760 M1-05 DO YOU WORK WITH BLOCKING OSCILLATORS		1	0	0	3	1	4	0	0
M 761 M1-06 DO YOU USE OR REFER TO RISE TIME		1	0	0	3	1	4	2	3
M 762 M1-07 DO YOU USE OR REFER TO FALL OR FLICKER TIME		1	0	0	3	1	6	1	0
M 763 M1-08 DO YOU USE OR REFER TO SLEEP TIME		1	0	1	3	6	7	6	4
M 764 M1-09 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS		3	0	2	6	1	0	1	3
M 765 M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS		2	0	0	9	1	0	0	3
M 766 M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH WAVEFORMS		1	0	0	3	1	0	0	3
M 767 M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH WAVEFORMS		1	0	0	3	0	0	0	0
M 768 M2-01 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB		5	13	6	0	22	50	20	14
M 769 M2-02 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS		7	27	6	0	23	50	20	19
M 770 M2-03 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL		4	27	2	0	3	13	2	3
M 771 M2-04 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY WHILE USING SIGNAL GENERATORS		6	27	5	0	15	31	14	11
M 772 M2-05 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE COMPONENT WHILE USING SIGNAL GENERATORS		2	13	1	0	3	13	2	0
M 773 M2-06 DO YOU USE AUDIO SINE-WAVE GENERATORS		0	0	0	0	4	6	3	6

TIMING CIRCUITS

USE OF SIGNAL GENERATORS

PCT MBRS ANSWRNG YES FOR 326X2 DAFSC GRPS

TASK GROUP SUMMARY

	DY-TSK	SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
M 775 M2-07 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE		0	0	0	0	3	6	1	6
M 776 M2-08 DO YOU USE RF GENERATORS LESS THAN 1,000 MH		0	0	0	0	13	25	12	11
M 777 M2-09 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH		0	0	0	0	12	19	13	6
M 778 M2-10 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION GENERATORS		1	7	1	0	8	13	8	8
M 779 M3-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS OR		29	27	31	24	3	6	2	3
M 780 M3-02 DO YOU INSPECT MOTORS		7	7	6	9	1	0	0	3
M 781 M3-03 DO YOU CLEAN OR LUBRICATE MOTORS		15	7	18	12	2	6	1	3
M 782 M3-04 DO YOU OPERATE MOTORS		16	20	18	12	1	6	0	0
M 783 M3-05 DO YOU REMOVE OR REPLACE COMPLETE MOTORS		1	0	1	0	0	0	0	0
M 784 M3-06 DO YOU REMOVE OR REPLACE MOTOR PARTS		21	20	23	18	1	0	0	3
M 785 M3-07 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS		2	0	3	0	0	0	0	0
M 786 M3-08 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS		1	0	1	0	0	0	0	0
M 787 M3-09 DO YOU PERFORM ANY TASKS ON FIELD COILS		1	0	1	0	0	0	0	0
M 788 M3-10 DO YOU PERFORM ANY TASKS ON ARMATURES		1	0	1	0	0	0	0	0
M 789 M3-11 DO YOU PERFORM ANY TASKS ON ROTORS		1	0	1	0	0	0	0	0
M 790 M3-12 DO YOU PERFORM ANY TASKS ON BRUSHES		1	0	1	0	0	0	0	0
M 791 M3-13 DO YOU PERFORM ANY TASKS ON SLIP RINGS		1	0	1	0	0	0	0	0
M 792 M3-14 DO YOU PERFORM ANY TASKS ON COMMUTATORS		1	0	1	0	0	0	0	0
M 793 M3-15 DO YOU PERFORM ANY TASKS ON POLE PIECES		1	0	1	0	0	0	0	0
M 794 M3-16 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OF THE FORCE OR TORQUE CREATED BY A MOTOR		1	7	1	0	0	0	0	0
M 795 M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR		2	7	1	3	0	0	0	0
M 796 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS		3	7	2	3	0	0	0	0
M 797 M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS		21	27	23	12	1	6	0	3
M 798 M3-20 DO YOU WORK WITH INDUCTION MOTORS		18	13	18	21	1	0	0	3
M 799 M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS		7	7	6	9	0	0	0	0
M 800 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS		16	13	15	18	1	0	1	0
M 801 M3-23 DO YOU INSPECT GENERATORS		6	7	6	4	0	0	0	0
M 802 M3-24 DO YOU CLEAN OR LUBRICATE GENERATORS		1	0	0	6	0	0	0	0
M 803 M3-25 DO YOU OPERATE GENERATORS		8	0	9	6	1	0	1	0
M 804 M3-26 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS		12	20	11	9	0	0	0	0
M 805 M3-27 DO YOU REMOVE OR REPLACE GENERATOR PARTS		0	0	0	0	0	0	0	0
M 806 M3-28 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS		17	13	20	12	0	0	0	0
M 807 M3-29 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS		1	0	1	0	0	0	0	0
M 808 M1-01 DO YOU WORK WITH METERS IN YOUR PRESENT JOB		70	87	69	65	70	69	70	72
M 809 M1-02 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF PERMANENT MAGNETS		8	0	9	9	5	0	5	6
M 810 M1-03 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF MOVING COILS		10	7	10	12	6	0	7	8

METER MOVEMENTS

PCT MBRS ANSWRNG YES FOR J26X2 DAFSC GRPS
TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

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AF HUMAN RESOURCES LABORATORY
AIR FORCE SYSTEMS COMMAND

0Y-TSK

	SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
N 011 N1-04 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS	7	0	0	0	0	0	0	0
N 012 N1-05 DO YOU READ METER SCALES	73	07	72	60	70	63	72	69
N 013 N1-06 DO YOU EXTEND THE RANGE OF AMMETERS	16	27	16	9	16	6	18	14
N 014 N1-07 DO YOU ZERO OHMMETERS	73	07	72	71	60	63	69	69
N 015 N1-08 DO YOU ZERO AMMETERS	20	20	19	29	23	36	24	14
N 016 N1-09 DO YOU EXTEND THE RANGE OF VOLTMETERS	34	47	34	29	26	19	30	17
N 017 N1-10 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)	26	27	22	47	26	19	24	33
N 018 N2-01 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB	1	0	0	3	0	0	0	0
N 019 N2-02 DO YOU INSPECT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0	0	0	0
N 020 N2-03 DO YOU CLEAN MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0	0	0	0
N 021 N2-04 DO YOU ADJUST MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0	0	0	0
N 022 N2-05 DO YOU TROUBLESHOOT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	1	0	0	3	0	0	0	0
N 023 N2-06 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	1	0	0	3	0	0	0	0
N 024 N2-07 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS	0	0	0	0	0	0	0	0
N 025 N2-08 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS	1	0	0	3	0	0	0	0
N 026 N2-09 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF	0	0	0	0	0	0	0	0
N 027 N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE	0	0	0	0	0	0	0	0
N 028 N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS	1	0	0	3	0	0	0	0
N 029 N2-12 DO YOU USE OR REFER TO COERCITIVE FORCE IN SATURABLE REACTORS	0	0	0	0	0	0	0	0
N 030 N2-13 DO YOU USE OR REFER TO RESIDUAL MAGNETISM IN SATURABLE REACTORS	0	0	0	0	0	0	0	0
N 031 N2-14 DO YOU USE OR REFER TO FLUX DENSITY IN SATURABLE REACTORS	0	0	0	0	0	0	0	0
N 032 N2-15 DO YOU USE OR REFER TO POINT OF SATURATION IN SATURABLE REACTORS	0	0	0	0	0	0	0	0
N 033 N2-16 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS	0	0	0	0	0	0	0	0
N 034 N3-01 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB	3	7	2	6	6	13	5	6
N 035 N3-02 DO YOU USE OR REFER TO TRANSIENT INTERVALS	0	0	0	0	3	13	2	3
N 036 N3-03 DO YOU USE OR REFER TO PULSE WIDTH (PW)	3	7	2	6	6	13	5	6
N 037 N3-04 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PAT)	1	0	1	3	5	13	3	6

SATURABLE REACTORS
AND MAGNETIC
AMPLIFIERS

WAVESHAPING
CIRCUITS

PROJECT MORS ANSWERING YES FOR 326Y2 DAFSC GRPS

TASK GROUP SUMMARY

DY-7SK

[illegible]

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

04-TSK

SPC SPC SPC SPC SPC SPC SPC SPC
046 047 048 049 050 051 052 053

0 900 02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
VIDEO AMPLIFIERS
0 901 02-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
POWER VIDEO AMPLIFIERS
0 902 02-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
DON'T REMEMBER WHICH PULSE MODULATION SYSTEM STAGES
0 903 02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY
(PRF)
0 904 02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)
0 905 02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW)
0 906 02-32 DO YOU USE OR REFER TO PULSE SHAPE
0 907 02-33 DO YOU USE OR REFER TO PEAK POWER
0 908 02-34 DO YOU USE OR REFER TO AVERAGE POWER
0 909 02-35 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE
RECURRENCE FREQUENCY (PRF)
0 910 02-36 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE
RECURRENCE FREQUENCY (PRF)
0 911 02-37 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR
PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS
0 912 02-38 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE
MODULATION TRANSMITTER SCHEMATIC DIAGRAMS
0 913 02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE
MODULATION RECEIVER SCHEMATIC DIAGRAMS
0 914 03-01 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB
0 915 03-02 DO YOU INSPECT ANTENNAS
0 916 03-03 DO YOU CLEAN ANTENNAS
0 917 03-04 DO YOU PHYSICALLY ALIGN ANTENNAS
0 918 03-05 DO YOU ELECTRICALLY ALIGN ANTENNAS
0 919 03-06 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS
0 920 03-07 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS
0 921 03-08 DO YOU REMOVE OR INSTALL ANTENNAS
0 922 03-09 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS
0 923 03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING
REPRESENTATIONS OF E OR ELECTRIC FIELD LINES
0 924 03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING
REPRESENTATIONS OF H OR MAGNETIC FIELD LINES
0 925 03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES
IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS
0 926 03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT
ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS
0 927 03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS
WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS
0 928 03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS
WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS

ANTENNAS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	046	047	048	049	050	051	052	053	
0 929 03-16 DO YOU WORK WITH HERTZ ANTENNAS	0	0	0	0	9	0	12	6	
0 930 03-17 DO YOU WORK WITH MARCONI ANTENNAS	0	0	0	0	8	0	6	17	
0 931 03-18 DO YOU WORK WITH BROADSIDE ARRAYS	0	0	0	0	4	0	8	6	
0 932 03-19 DO YOU WORK WITH END-FIRE ARRAYS	0	0	0	0	2	0	3	0	
0 933 03-20 DO YOU WORK WITH END-FIRE ARRAYS	0	0	0	0	21	38	19	19	
0 934 03-21 DO YOU WORK WITH COLLIMAR ARRAYS	0	0	0	0	9	19	11	0	
0 935 03-22 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS	0	0	0	0	4	13	6	3	
0 936 03-23 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS	0	0	0	0	3	0	5	0	
0 937 03-24 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS	0	0	0	0	12	25	12	6	
0 938 03-25 DO YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS	0	0	0	0	6	6	9	0	
0 939 03-26 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION	0	0	0	0	1	0	1	0	
0 940 03-27 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD	0	0	0	0	1	6	1	0	
0 941 03-28 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED	0	0	0	0	17	13	18	17	
0 942 03-29 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED	0	0	0	0	11	13	11	11	
0 943 03-30 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON	0	0	0	0	4	0	5	3	
0 944 03-31 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT, ANTENNAS OF CORRECT LENGTH FOR ELEMENTS	0	0	0	0	1	0	1	0	
0 945 03-32 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS	0	0	0	0	7	6	7	8	
0 946 03-33 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS DIRECTORS	0	0	0	0	8	6	8	8	
0 947 03-34 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS	0	0	0	0	8	6	8	8	
0 948 03-35 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN DON'T REMEMBER WHAT KIND OF ELEMENTS	0	0	0	0	34	50	30	36	
0 949 03-36 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS	0	0	0	0	50	49	49	47	
0 950 03-37 DO YOU WORK ON BIDIRECTIONAL ANTENNAS	0	0	0	0	45	56	45	39	
0 951 03-38 DO YOU WORK ON DON'T REMEMBER THE DIRECTIONALITY	0	0	0	0	16	25	16	14	
0 952 03-39 DO YOU WORK WITH ROTAR ANTENNA ARRAYS	0	0	0	0	14	44	11	8	
0 953 03-40 IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION LINES (TRANSMISSION LINES ARE DEFINED TO INCLUDE LEADS	0	0	0	0	81	94	80	81	
0 954 03-41 DO YOU REFER TO OR USE COPPER LOSS OR IZR LOSS IN TRANSMISSION LINES	0	0	0	0	8	19	7	6	
0 955 03-42 DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY CURRENTS IN TRANSMISSION LINES	0	0	0	0	10	19	9	11	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPC U46	SPC Q47	SPC U48	SPC Q49	SPC Q50	SPC Q51	SPC Q52	SPC Q53
DI-TSK								
P 956 PI-04 DO YOU REFER TO OR USE RADIATION LOSS IN TRANSMISSION LINES	0	0	0	0	31	30	31	28
P 957 PI-05 DO YOU USE OR REFER TO DIELECTRIC LOSS IN TRANSMISSION LINES	0	0	0	0	12	25	10	14
P 958 PI-06 DO YOU USE OR REFER TO LEAKAGE LOSSES IN TRANSMISSION LINES	0	0	0	0	39	69	36	33
P 959 PI-07 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES	1	0	0	3	20	30	22	6
P 960 PI-08 DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES	0	0	0	0	17	25	18	8
P 961 PI-09 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES	1	0	0	3	11	31	11	3
P 962 PI-10 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION LINES	1	0	0	3	82	94	80	83
P 963 PI-11 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION LINES	0	0	0	0	75	94	74	72
P 964 PI-12 DO YOU TROUBLESHOOT TRANSMISSION LINES	1	0	0	3	78	88	77	78
P 965 PI-13 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION	0	0	0	0	15	13	18	6
P 966 PI-14 DO YOU SELECT APPROPRIATE TRANSMISSION LINES TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS	0	0	0	0	4	6	3	6
P 967 PI-15 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS	0	0	0	0	15	25	15	14
P 968 PI-16 DO YOU MEASURE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES	0	0	0	0	57	63	54	61
P 969 PI-17 DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES	0	0	0	0	14	13	15	14
P 970 PI-18 DO YOU PERFORM THE CALCULATIONS NECESSARY TO DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING MATCHING TRANSFORMERS	0	0	0	0	11	19	12	6
P 972 PI-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING DELTA MATCHING	0	0	0	0	3	6	1	6
P 973 PI-21 DO YOU SELECT THE TYPE OF TRANSMISSION LINE NEEDED FOR PARTICULAR JOBS WITHOUT REFERRING TO TECHNICAL DATA	0	0	0	0	1	0	1	0
P 974 PI-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES	0	0	0	0	14	19	12	19
P 975 PI-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES	0	0	0	0	2	6	2	0
P 976 PI-24 DO YOU USE OR REFER TO THE TERM CUTOFF FREQUENCY OF TRANSMISSION LINES	0	0	0	0	4	0	6	0
P 977 PI-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K) OF TRANSMISSION LINES	0	0	0	0	3	6	2	3
P 978 PI-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION LINES FOR PARTICULAR FREQUENCIES	0	0	0	0	3	6	3	0
P 979 PI-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR ELECTRICAL LENGTH FOR GIVEN FREQUENCIES	0	0	0	0	8	13	5	14
P 980 PI-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF	0	0	0	0	5	0	5	8

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-15K

	SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
P 981 P1-29 DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION LINES	0	0	0	0	13	25	9	19
P 982 P1-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES	0	0	0	0	25	25	25	25
P 983 P1-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING STUB MATCHING	0	0	0	0	7	6	5	14
P 984 P2-01 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN YOUR PRESENT JOB	0	0	0	0	70	88	68	67
P 985 P2-02 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS	0	0	0	0	63	69	62	69
P 986 P2-03 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS	0	0	0	0	25	31	21	33
P 987 P2-04 DO YOU BEND WAVEGUIDES OR CAVITY RESONATORS	0	0	0	0	14	38	13	8
P 988 P2-05 DO YOU TWIST WAVEGUIDES OR CAVITY RESONATORS	0	0	0	0	8	19	10	0
P 989 P2-06 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS	0	0	0	0	59	63	61	50
P 990 P2-07 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS	0	0	0	0	36	50	40	19
P 991 P2-08 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS	0	0	0	0	60	81	56	61
P 992 P2-09 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDE SECTIONS	0	0	0	0	63	75	63	58
P 993 P2-10 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS	0	0	0	0	65	75	65	61
P 994 P2-11 DO YOU REMOVE OR INSTALL DUMMY LOADS	0	0	0	0	23	25	23	22
P 995 P2-12 DO YOU REMOVE OR INSTALL E BENDS	0	0	0	0	13	25	13	8
P 996 P2-13 DO YOU REMOVE OR INSTALL H BENDS	0	0	0	0	12	25	12	8
P 997 P2-14 DO YOU REMOVE OR INSTALL OTHER BENDS	0	0	0	0	28	38	31	14
P 998 P2-15 DO YOU REMOVE OR INSTALL CHOKES	0	0	0	0	8	13	10	3
P 999 P2-16 DO YOU REMOVE OR INSTALL ROTATING JOINTS	0	0	0	0	8	13	10	3
P1000 P2-17 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS	0	0	0	0	28	38	28	25
P1001 P2-18 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS	0	0	0	0	20	31	19	17
P1002 P2-19 DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES	0	0	0	0	3	0	4	3
P1003 P2-20 DO YOU USE OR REFER TO "B" WALL OF WAVEGUIDES	0	0	0	0	3	0	3	3
P1004 P2-21 DO YOU USE OR REFER TO CUTOFF FREQUENCY OF WAVEGUIDES	0	0	0	0	2	0	3	0
P1005 P2-22 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF WAVEGUIDES	0	0	0	0	0	0	0	0
P1006 P2-23 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF WAVEGUIDES	0	0	0	0	1	0	2	0
P1007 P2-24 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY CONDITIONS	0	0	0	0	1	0	1	0
P1008 P2-25 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS	0	0	0	0	1	0	1	0
P1009 P2-26 DO YOU USE OR REFER TO DUPLICATION FIELD BOUNDARY CONDITIONS	0	0	0	0	0	0	0	0
P1010 P2-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A ".8" WALL SIZE OF ".7" WAVELENGTHS	0	0	0	0	1	6	0	0
P1011 P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST ".8" WALLS RANGE FROM ".2 TO ".5 WAVELENGTHS IN SIZE, WITH ".35 WAVELENGTHS ARE YOU CONCERNED WITH THE MATERIAL (SUCH AS BRASS)	0	0	0	0	5	13	5	0
P1012 P2-29 ARE YOU CONCERNED WITH THE MATERIAL (SUCH AS BRASS) WHICH WAVEGUIDES ARE MADE OF	0	0	0	0	1	6	1	0
P1013 P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION	0	0	0	0	1	6	1	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGDY-TSK
SPC SPC SPC SPC SPC SPC SPC SPC SPC SPC
046 047 048 049 050 051 052 053

P1014 P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR P1015 P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR "H" LINES IN WAVEGUIDES
P1016 P2-33 DO YOU MEASURE THE TIME PHASE OF "E" OR "H" LINES IN WAVEGUIDES
P1017 P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR "H" LINES IN WAVEGUIDES
P1018 P2-35 ARE HIGH POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P1019 P2-36 ARE LOW POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P1020 P2-37 ARE LOOPS USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P1021 P2-38 ARE APERTURES (WINDOWS OR RISERS) USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P1022 P2-39 ARE DON'T REMEMBER THE KIND OF ENERGY COUPLING USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P1023 P2-40 DO YOU DETERMINE WHERE PROBES SHOULD BE MOUNTED IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO
P1024 P2-41 DO YOU DETERMINE THE POSITIONING OF LOOPS IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO
P1025 P2-42 DO YOU DETERMINE THE POSITIONING OR SIZE OF APERTURES IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO
P1026 P2-43 ARE CHOKE JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P1027 P2-44 ARE ROTATING JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P1028 P2-45 ARE DON'T REMEMBER THE KIND OF JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P1029 P2-46 DO YOU TUNE CAVITY RESONATORS USING CAPACITIVE TUNING
P1030 P2-47 DO YOU TUNE CAVITY RESONATORS USING INDUCTIVE TUNING
P1031 P2-48 DO YOU TUNE CAVITY RESONATORS USING VOLUME TUNING
P1032 P2-49 DO YOU TUNE CAVITY RESONATORS USING DON'T REMEMBER THE METHOD OF TUNING
P1033 P2-50 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY RESONATORS
P1034 P3-01 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS, TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR
P1035 P3-02 DO YOU USE OR REFER TO INTERELECTRODE CAPACITANCE
P1036 P3-03 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME
P1037 P3-04 DO YOU USE OR REFER TO LEAD INDUCTANCE

MICROWAVE
AMPLIFIERS AND
OSCILLATORS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC 046	SPC 047	SPC 048	SPC 049	SPC 050	SPC 051	SPC 052	SPC 053
PI0175	P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS FEEDBACK LOOPS	0	0	0	0	0	0
PI0176	P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS DRIIFT SPACES	0	0	0	0	0	0
PI0177	P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS BUNCHER GRIDS	0	0	0	0	0	0
PI0178	P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS BUNCHER CAVITIES	0	0	0	0	0	0
PI0179	P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CONTROL GRIDS	0	0	0	0	1	6
PI0180	P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATHODES	0	0	0	0	0	0
PI0181	P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON REFLECTOR (REFLECTOR) PLATES	0	0	0	0	0	0
PI0182	P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRIDS	0	0	0	0	0	0
PI0183	P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID CAVITY GAPS	0	0	0	0	0	0
PI0184	P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON RESONANT CAVITIES	0	0	0	0	0	0
PI0185	P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON MAGNETIC COUPLING LOOPS	0	0	0	0	0	0
PI0186	P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON FILAMENTS	0	0	0	0	0	0
PI0187	P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON CATHODES	0	0	0	0	0	0
PI0188	P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON OUTPUT LEADS	0	0	0	0	0	0
PI0189	P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES FILAMENTS	0	0	0	0	1	0
PI0190	P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES CATHODES	0	0	0	0	1	0
PI0191	P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES MODULATOR GRIDS	0	0	0	0	0	0
PI0192	P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES ANODES	0	0	0	0	0	0
PI0193	P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES HELICES	0	0	0	0	1	0
PI0194	P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES COLLECTORS	0	0	0	0	0	0
PI0195	P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES MAGNETS	0	0	0	0	1	0
PI0196	P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES ATTENUATORS	0	0	0	0	1	6
PI0197	P3-64 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE CIRCULATORS	0	0	0	0	0	0
PI0198	P3-65 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER SIGNAL CAVITIES	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC	SPC
	046	047	048	049	050	051	052	053	
P1009 P3-66 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER IDLER CAVITIES	0	0	0	0	0	0	0	0	0
P1100 P3-67 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER VARACTOR DIODES	0	0	0	0	0	0	0	0	0
P1101 P3-68 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE ISOLATORS	0	0	0	0	0	0	0	0	0
P1102 P3-69 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER REVERSE-BIAS BATTERIES	0	0	0	0	0	0	0	0	0
P1103 P3-70 DO YOU PERFORM TASKS ON ANODES	0	0	0	0	0	0	0	0	0
P1104 P3-71 DO YOU PERFORM TASKS ON ANODE COOLING PINS	0	0	0	0	0	0	0	0	0
P1105 P3-72 DO YOU PERFORM TASKS ON COUPLING LOOPS	0	0	0	0	0	0	0	0	0
P1106 P3-73 DO YOU PERFORM TASKS ON HEATER LEADS	0	0	0	0	0	0	0	0	0
P1107 P3-74 DO YOU PERFORM TASKS ON HEATER CAVITIES	0	0	0	0	0	0	0	0	0
P1108 P3-75 DO YOU PERFORM TASKS ON CATANODES	0	0	0	0	0	0	0	0	0
P1109 P3-76 DO YOU PERFORM TASKS ON MAGNETS	0	0	0	0	0	0	0	0	0
Q1110 Q1-01 DO YOU USE OR REFER TO STORAGE REGISTERS	1	0	0	3	2	0	2	3	3
Q1111 Q1-02 DO YOU USE OR REFER TO SHIFT REGISTERS	1	0	1	3	1	0	1	3	3
Q1112 Q1-03 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS	1	0	2	0	1	0	1	3	3
Q1113 Q1-04 DO YOU USE OR REFER TO LOGIC SYMBOLS OF STORAGE REGISTERS	1	0	1	0	2	0	2	3	3
Q1114 Q1-05 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS	2	0	2	3	1	0	1	3	3
Q1115 Q1-06 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF REGISTERS	3	0	3	3	1	0	1	3	3
Q1116 Q1-07 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES	1	0	1	3	1	0	0	3	3
Q1117 Q2-01 DO YOU WORK WITH DIGITAL COUNTERS, REGISTERS, OR STORAGE DEVICES IN YOUR PRESENT JOB	5	0	5	9	5	6	5	3	3
Q1118 Q2-02 DO YOU USE OR REFER TO DELAY LINES	0	0	0	0	1	0	2	0	0
Q1119 Q2-03 DO YOU USE OR REFER TO MAGNETIC CORES	1	0	0	3	1	0	1	0	0
Q1120 Q2-04 DO YOU USE OR REFER TO MAGNETIC DRUMS	1	0	0	3	0	0	0	0	0
Q1121 Q2-05 DO YOU USE OR REFER TO MAGNETIC TAPES	7	0	6	12	0	0	0	0	0
Q1122 Q2-06 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OR MEMORY SYSTEMS	2	0	1	6	1	6	1	0	0
Q1123 Q2-07 DO YOU USE OR REFER TO WORK CAPACITY OF MEMORY SYSTEMS	2	0	1	6	1	0	0	3	3
Q1124 Q2-08 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS	1	0	1	3	1	0	0	3	3
Q1125 Q2-09 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES	0	0	0	0	0	0	0	0	0
Q1126 Q3-01 IN YOUR PRESENT JOB DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS, ANALOG-TO-DIGITAL (A/D)	8	7	6	12	4	0	5	3	3
Q1127 Q3-02 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT	1	7	0	3	0	0	0	0	0
Q1128 Q3-03 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A)	1	0	1	3	0	0	0	0	0

STORAGE DEVICES

REGISTERS

DIGITAL TO
ANALOG CONVERTERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC SPC SPC SPC SPC SPC SPC
046 047 048 049 050 051 052 053

Q1129 Q3-04 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY
COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS
Q1130 Q3-05 DO YOU PERFORM SAMPLE FUNCTION TASKS ON VARIABLE TIME
ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS
Q1131 Q3-06 DO YOU PERFORM HOLD FUNCTION TASKS ON VARIABLE TIME
ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS
Q1132 Q3-07 DO YOU PERFORM COMPARE FUNCTION TASKS ON VARIABLE
TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS
Q1133 Q3-08 DO YOU PERFORM DIGITIZE FUNCTION TASKS ON VARIABLE
TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS
Q1134 Q3-09 DO YOU PERFORM DON'T REMEMBER WHICH FUNCTION TASKS
ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER
CIRCUITS
Q1135 Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D
CONVERTERS
Q1136 Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D
CONVERTERS
Q1137 Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D
CONVERTERS
Q1138 Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D
CONVERTERS
Q1139 Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-
DIGITAL (A/D) CONVERTERS
R1140 R1-01 DO YOU WORK WITH PHANTASTRON CIRCUITRY IN YOUR
PRESENT JOB
R1141 R2-01 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER
CIRCUITS
R1142 R2-02 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER
SCHEMATIC DIAGRAMS
R1143 R2-03 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS
R1144 R3-01 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR
CABLES
R1145 R3-02 DO YOU FABRICATE COAXIAL CABLES
S1146 S1-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS ON
VISUAL HEADOUT SYSTEMS
S1147 S1-02 DO YOU PERFORM ANY TASKS ON NIXIE LIGHTS OR NIXIE
LIGHT DECODER SYSTEMS
S1148 S1-03 DO YOU ANALYZE NIXIE LIGHT DECODER SYSTEMS USING
BOOLEAN ALGEBRA
S1149 S2-01 DO YOU WORK WITH PHOTO TUBES IN YOUR PRESENT JOB
S1150 S3-01 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS
S1151 S3-02 DO YOU MEASURE EXCITATION FREQUENCIES
S1152 S3-03 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIPS
S1153 S3-04 DO YOU USE OR REFER TO EXCITATION FREQUENCIES
S1154 S3-05 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE
RELATIONSHIPS
S1155 S3-06 DO YOU USE SERVOES IN CONJUNCTION WITH CHOPPER
CIRCUIT OPERATION

PHANTASTRONS

SCHMITT TRIGGERS

CABLE FABRICATION

INPUT/OUTPUT
DEVICES

PHOTO SENSITIVE DEVICES

SYNCHRONOUS VIBRATIONS
(CHOPPER CIRCUITS)

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC SPC SPC SPC SPC SPC SPC SPC SPC
046 047 048 049 050 051 052 053

T1192 T2-07 00 YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER SYSTEMS 0 0 0 0 0 0 0 0 0

T1193 T2-08 00 YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER SYSTEMS 0 0 0 0 0 0 0 0 0

T1194 T2-09 00 YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER SYSTEMS 0 0 0 0 0 0 0 0 0

T1195 T2-10 00 YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER SYSTEMS 0 0 0 0 0 0 0 0 0

T1196 T2-11 00 YOU USE OR REFER TO ANGSTROMS (A) 0 0 0 0 0 0 0 0 0

T1197 T2-12 00 YOU USE OR REFER TO ELECTRON ENERGY LEVELS 0 0 0 0 0 0 0 0 0

T1198 T2-13 00 YOU USE OR REFER TO GROUND STATE 0 0 0 0 0 0 0 0 0

T1199 T2-14 00 YOU USE OR REFER TO EXCITED STATE 0 0 0 0 0 0 0 0 0

T1200 T2-15 00 YOU USE OR REFER TO PACKET OF RADIATION 0 0 0 0 0 0 0 0 0

T1201 T2-16 00 YOU USE OR REFER TO PHOTONS 0 0 0 0 0 0 0 0 0

T1202 T2-17 00 YOU USE OR REFER TO SPONTANEOUS EMISSION 0 0 0 0 0 0 0 0 0

T1203 T2-18 00 YOU USE OR REFER TO STIMULATED EMISSION 0 0 0 0 0 0 0 0 0

T1204 T2-19 00 YOU USE OR REFER TO COHERENCE OR INCOHERENCE 0 0 0 0 0 0 0 0 0

T1205 T2-20 00 YOU USE OR REFER TO INVERSION LEVEL 0 0 0 0 0 0 0 0 0

T1206 T2-21 00 YOU USE OR REFER TO MONOCHROMATIC 0 0 0 0 0 0 0 0 0

T1207 T2-22 00 YOU WORK WITH ACTIVE MATERIALS 0 0 0 0 0 0 0 0 0

T1208 T2-23 00 YOU WORK WITH PUMPING SOURCES 0 0 0 0 0 0 0 0 0

T1209 T2-24 00 YOU WORK WITH FULL SILVERED (100% REFLECTIVE) MIRRORS 0 0 0 0 0 0 0 0 0

T1210 T2-25 00 YOU WORK WITH HALF SILVERED (92% REFLECTIVE) MIRRORS 0 0 0 0 0 0 0 0 0

T1211 T2-26 00 YOU WORK WITH HELICAL FLASHTUBES 0 0 0 0 0 0 0 0 0

T1212 T2-27 00 YOU WORK WITH RUBY 0 0 0 0 0 0 0 0 0

T1213 T2-28 00 YOU WORK WITH HELIUM-NEON 0 0 0 0 0 0 0 0 0

T1214 T2-29 00 YOU WORK WITH HELIUM-XENON 0 0 0 0 0 0 0 0 0

T1215 T2-30 00 YOU WORK WITH XENON 0 0 0 0 0 0 0 0 0

T1216 T2-31 00 YOU WORK WITH CESIUM-HELIUM 0 0 0 0 0 0 0 0 0

T1217 T2-32 00 YOU WORK WITH ARGON 0 0 0 0 0 0 0 0 0

T1218 T2-33 00 YOU WORK WITH NEODYMIUM IN GLASS 0 0 0 0 0 0 0 0 0

T1219 T2-34 00 YOU WORK WITH GALLIUM ARSENIDE 0 0 0 0 0 0 0 0 0

T1220 T3-01 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES, SUCH AS DIRECT VIEW STORAGE (DVS) OR MULTIPLE MODE 1 0 0 3 4 0 0 0 0

T1221 T3-02 00 YOU INSPECT DYST OR MNST 0 0 0 0 0 1 0 2 0

T1222 T3-03 00 YOU CLEAN DYST OR MNST 0 0 0 0 0 1 0 1 0

T1223 T3-04 00 YOU ADJUST OR CALIBRATE DYST OR MNST 0 0 0 0 0 1 0 1 0

T1224 T3-05 00 YOU OPERATE SYSTEMS THAT CONTAIN DYST OR MNST 0 0 0 0 0 4 0 6 0

T1225 T3-06 00 YOU TROUBLESHOOT DYST OR MNST 0 0 0 0 0 0 0 0 0

T1226 T3-07 00 YOU REMOVE OR REPLACE DYST OR MNST TUBES FROM MAJOR ASSEMBLIES OR UNITS 0 0 0 0 0 1 0 1 0

T1227 T3-08 00 YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME THE VARIOUS ELEMENTS OF DYST 0 0 0 0 0 0 0 0 0

UNITED STATES AIR FORCE
JOB INVENTORY

JOB INVENTORY FOR INTEGRATED AVIONICS (326X0/X1/X2)

- A MATHEMATICS, DIRECT CURRENT, VOLTAGE, AND RESISTANCE
- A 1 A1-01 DO YOU USE AN INSTRUMENT, SUCH AS METER OR AN OSCILLOSCOPE, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE A VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10.
- A 2 A1-02 DO YOU USE A PUBLICATION, SUCH AS A TECHNICAL ORDER OR MAINTENANCE MANUAL, IN WHICH IT IS NECESSARY FOR YOU TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE YOU CAN APPLY THE INFORMATION FROM THE PUBLICATION IN A USEFUL WAY ON THE JOB.
- A 3 A1-03 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS.
- A 4 A1-04 DO YOU FIND THE SQUARE ROOT OF A QUANTITY.
- A 5 A1-05 DO YOU SOLVE FOR AN UNKNOWN QUANTITY.
- A 6 A1-06 DO YOU CONVERT NUMBERS TO LOGARITHMS.
- A 7 A1-07 DO YOU USE LOGARITHM TABLES IN ANY TYPE OF CALCULATIONS.
- A 8 A1-08 DO YOU SOLVE QUADRATIC EQUATIONS.
- A 9 A1-09 DO YOU USE THE NATURAL SYSTEM OF LOGARITHMS (THIS IS THE LOGARITHM SYSTEM WHICH USES THE NUMBER 2.718 AS A BASE).
- A 10 A1-10 DO YOU WORK WITH VECTOR QUANTITIES, SUCH AS ADDING OR SUBTRACTING TWO VECTORS.
- A 11 A1-11 DO YOU WORK WITH TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT.
- A 12 A1-12 DO YOU DETERMINE AREAS OF PLANE FIGURES, SUCH AS AREAS OF CIRCLES OR TRIANGLES.
- A 13 A1-13 DO YOU SOLVE OR USE SIMULTANEOUS EQUATIONS.
- A 14 A1-14 DO YOU SOLVE OR USE PROPORTIONS.
- A 15 A2-01 DO YOU USE THE TERM VOLTAGE OR VOLT.
- A 16 A2-02 DO YOU USE THE TERM ELECTROMOTIVE FORCE (EMF).
- A 17 A2-03 DO YOU USE THE TERM OHM.
- A 18 A2-04 DO YOU USE THE TERM ION.
- A 19 A2-05 DO YOU USE THE TERM DYNE.
- A 20 A2-06 DO YOU USE THE TERM AMPERE.
- A 21 A2-07 DO YOU USE THE TERM NEUTRON.
- A 22 A2-08 DO YOU USE THE TERM COULOMB.
- A 23 A2-09 DO YOU USE THE TERM PROTON.
- A 24 A3-01 DO YOU WORK WITH RESISTORS IN YOUR PRESENT JOB.
- A 25 A3-02 DO YOU INSPECT RESISTORS.
- A 26 A3-03 DO YOU CLEAN RESISTORS.
- A 27 A3-04 DO YOU ADJUST RESISTORS.
- A 28 A3-05 DO YOU CHECK OHMIC VALUE OF RESISTORS.
- A 29 A3-06 DO YOU REMOVE OR REPLACE RESISTORS.
- A 30 A3-07 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS ON ANY TASKS IN YOUR PRESENT JOB.
- A 31 A3-08 DO YOU USE OR REFER TO RESISTOR SYMBOLS, SUCH AS FOR FIXED RESISTORS OR FOR TAPPED RESISTORS.
- A 32 A3-09 DO YOU IDENTIFY OR CLASSIFY THE RESISTORS YOU WORK WITH AS CARBON, FILLED WIRE, SLIDE TAP, RHEOSTAT OR POTENTIOMETER.
- A 33 A3-10 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE THE OHMIC VALUE OF RESISTANCE.
- A 34 A3-11 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE THE TOLERANCE OF RESISTORS.
- A 35 A3-12 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE THE FAILURE RATE OF RESISTORS.
- A 36 A3-13 DO YOU MAKE DECISIONS IN WHICH YOU MUST DETERMINE HOW TWO OR MORE BATTERIES MUST BE CONNECTED TOGETHER TO ACHIEVE A SPECIFIC VOLTAGE.
- A 37 A3-14 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT ANY OF THE FOLLOWING COMPONENTS: BATTERY, FUSE, CONDUCTOR, LAMP OR SWITCH.
- A 38 A3-15 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES RESISTIVE CIRCUITS.
- A 39 A3-16 DO YOU CALCULATE TOTAL CURRENT FOR SERIES RESISTIVE CIRCUITS.
- A 40 A3-17 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES RESISTIVE CIRCUITS.
- A 41 A3-18 DO YOU CALCULATE POWER DISSIPATION FOR SERIES RESISTIVE CIRCUITS.
- A 42 A3-19 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES PARALLEL RESISTIVE CIRCUITS.
- A 43 A3-20 DO YOU CALCULATE TOTAL CURRENT FOR SERIES PARALLEL RESISTIVE CIRCUITS.
- A 44 A3-21 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES PARALLEL RESISTIVE CIRCUITS.
- A 45 A3-22 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR SERIES PARALLEL RESISTIVE CIRCUITS.
- A 46 A3-23 DO YOU CALCULATE POWER DISSIPATION FOR SERIES PARALLEL RESISTIVE CIRCUITS.
- A 47 A3-24 DO YOU CALCULATE TOTAL RESISTANCE FOR PARALLEL RESISTIVE CIRCUITS.
- A 48 A3-25 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RESISTIVE CIRCUITS.
- A 49 A3-26 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR PARALLEL RESISTIVE CIRCUITS.
- A 50 A3-27 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR PARALLEL RESISTIVE CIRCUITS.
- A 51 A3-28 DO YOU CALCULATE POWER DISSIPATION FOR PARALLEL RESISTIVE CIRCUITS.

B MULTIMETER USES, ALTERNATING
CURRENT, INDUCTORS, AND INDUCTIVE

B 52 B1-01 DO YOU MEASURE RESISTANCE.
B 53 B1-02 DO YOU REPAIR AN OHMMETER.
B 54 B1-03 DO YOU MEASURE VOLTAGE.
B 55 B1-04 DO YOU REPAIR A VOLTMETER.
B 56 B1-05 DO YOU REPAIR AN AMMETER.
B 57 B1-06 DO YOU MEASURE CURRENT.
B 58 B1-07 DO YOU USE A MULTIMETER.
B 59 B1-08 DO YOU DIRECTLY USE A QUANTITY OF CHARGE CALLED
A COULOMB.
B 60 B1-09 DO YOU READ SCHEMATICS.
B 61 B2-01 DO YOU USE OR REFER THE TERM EFFECTIVE VOLTAGE
(RMS).

B 62 B2-02 DO YOU USE OR REFER THE TERM PEAK TO PEAK VOLTAGE.
B 63 B2-03 DO YOU USE OR REFER THE TERM AVERAGE VOLTAGE (DCI).
B 64 B2-04 DO YOU USE OR REFER THE TERM WAVE LENGTH.
B 65 B2-05 DO YOU USE OR REFER THE TERM FREQUENCY.
B 66 B2-06 DO YOU USE OR REFER THE TERM INSTANTANEOUS VALUE.
B 67 B3-01 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING
INDUCTORS, SMOKES, OR CHOKE COILS IN YOUR PRESENT JOB.
B 68 B3-02 DO YOU INSPECT INDUCTORS.
B 69 B3-03 DO YOU CLEAN INDUCTORS.
B 70 B3-04 DO YOU ADJUST INDUCTORS.
B 71 B3-05 DO YOU REMOVE OR REPLACE INDUCTORS.
B 72 B3-06 DO YOU USE OR REFER TO INDUCTANCE.
B 73 B3-07 DO YOU USE OR REFER TO HENRIES.
B 74 B3-08 DO YOU USE OR REFER TO INDUCTIVE REACTANCE.
B 75 B3-09 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS.
B 76 B3-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN
INDUCTORS.
B 77 B3-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN
INDUCTORS.
B 78 B3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT
INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE
NUMBER OF TURNS OF THE COIL.
B 79 B3-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE
CROSS SECTIONAL AREA OF THE COIL.
B 80 B3-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT
THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO
ITS LENGTH.
B 81 B3-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE
PERMEABILITY OF THE CORE MATERIAL.
B 82 B3-16 DO YOU CALCULATE INDUCTANCE FOR A PARTICULAR
INDUCTOR USING FORMULAS.
B 83 B3-17 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR
INDUCTORS IN SERIES.
B 84 B3-18 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR

B 85 B3-19 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR
INDUCTORS IN PARALLEL.
B 86 B3-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT
CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS.
B 87 B3-21 DO YOU CALCULATE INDUCTIVE REACTANCE.
B 88 B3-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT
INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO
FREQUENCY.
B 89 B3-23 DO YOU WORK WITH POWER INDUCTORS.
B 90 B3-24 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS.
B 91 B3-25 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS.

C CAPACITORS, CAPACITIVE REACTANCE, TRANSFORMERS,
AND MAGNETISM

C 92 C1-01 DO YOU WORK WITH CAPACITORS OR CIRCUITS
CONTAINING CAPACITORS ON YOUR PRESENT JOB.
C 93 C1-02 DO YOU INSPECT CAPACITORS.
C 94 C1-03 DO YOU CLEAN CAPACITORS.
C 95 C1-04 DO YOU ADJUST CAPACITORS.
C 96 C1-05 DO YOU TEST CAPACITORS.
C 97 C1-06 DO YOU DISCHARGE CAPACITORS.
C 98 C1-07 DO YOU REMOVE OR REPLACE CAPACITORS.
C 99 C1-08 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE.
C 100 C1-09 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS
IN A DIELECTRIC.
C 101 C1-10 DO YOU USE OR REFER TO FARADS, MICROFARADS, OR
PICOFARADS.
C 102 C1-11 DO YOU USE OR REFER TO CAPACITANCE.
C 103 C1-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT.
C 104 C1-13 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF
CAPACITORS.
C 105 C1-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE.
C 106 C1-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES.
C 107 C1-16 THE CAPACITORS YOU WORK WITH IN DC CIRCUITS.
C 108 C1-17 THE CAPACITORS YOU WORK WITH ARE IN AC CIRCUITS.
C 109 C1-18 THE CAPACITORS YOU WORK WITH ARE IN CIRCUITS WITH
BOTH DC AND AC.
C 110 C1-19 THE CAPACITORS YOU WORK WITH ARE DON'T REMEMBER
WHICH CIRCUITS.
C 111 C1-20 DO YOU CALCULATE CAPACITANCE FOR A PARTICULAR
CAPACITOR USING FORMULAS.
C 112 C1-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL
TO THE DIELECTRIC CONSTANT.
C 113 C1-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL
TO THE DIELECTRIC THICKNESS.
C 114 C1-23 DO YOU CALCULATE THE TOTAL CAPACITANCE OF
CAPACITORS IN SERIES.
C 115 C1-24 DO YOU CALCULATE THE TOTAL CAPACITANCE OF

- CAPACITORS IN PARALLEL.
- C116 C1-25 DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN SERIES-PARALLEL CIRCUITS.
- C117 C1-26 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO.
- C118 C1-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS.
- C119 C1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY.
- C120 C1-29 DO YOU CALCULATE CAPACITIVE REACTANCE.
- C121 C1-30 DO YOU WORK WITH MOTOR-STARTER CAPACITORS (VARIABLE).
- C122 C1-31 DO YOU WORK WITH COMPRESSION (THIMMER) CAPACITORS.
- C123 C1-32 DO YOU WORK WITH ELECTROLYTIC CAPACITORS (FIXED).
- C124 C1-33 DO YOU WORK WITH PAPER CAPACITORS (FIXED).
- C125 C1-34 DO YOU WORK WITH MICA CAPACITORS (FIXED).
- C126 C1-35 DO YOU WORK WITH CERAMIC CAPACITORS (FIXED).
- C127 C1-36 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF CAPACITORS.
- C128 C2-01 DO YOU WORK WITH TRANSFORMERS ON YOUR PRESENT JOB.
- C129 C2-02 DO YOU INSPECT TRANSFORMERS.
- C130 C2-03 DO YOU CLEAN TRANSFORMERS.
- C131 C2-04 DO YOU ADJUST TRANSFORMERS.
- C132 C2-05 DO YOU TROUBLESHOOT TRANSFORMERS.
- C133 C2-06 DO YOU REMOVE OR REPLACE COMPLETE TRANSFORMERS.
- C134 C2-07 DO YOU REMOVE OR REPLACE TRANSFORMER PARTS, SUCH AS THE PRIMARY WINDING.
- C135 C2-08 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION AND MUTUAL INDUCTANCE (MI).
- C136 C2-09 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M.
- C137 C2-10 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS.
- C138 C2-11 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS.
- C139 C2-12 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS.
- C140 C2-13 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS.
- C141 C2-14 DO YOU WORK WITH AUTOTRANSFORMERS.
- C142 C2-15 DO YOU WORK WITH POWER TRANSFORMERS.
- C143 C2-16 DO YOU WORK WITH AUDIO TRANSFORMERS.
- C144 C2-17 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS.
- C145 C2-18 DO YOU WORK WITH DON'T REMEMBER WHAT TYPE OF TRANSFORMER.
- C146 C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE.
- C147 C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE.
- C148 C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES.
- C149 C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO.
- C150 C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO.
- C151 C2-24 DO YOU REFER TO THE BASIC TRANSFORMER SCHEMATIC SYMBOLS FOR TRANSFORMERS.
- C152 C2-25 DO YOU REFER TO THE MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS.
- C153 C2-26 DO YOU REFER TO THE MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS.
- C154 C2-27 DO YOU REFER TO THE CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS.
- C155 C2-28 DO YOU REFER TO THE AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS.
- C156 C2-29 DO YOU REFER TO THE IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS.
- C157 C2-30 DO YOU REFER TO THE COMBINATIONS OF THE ABOVE SCHEMATIC SYMBOLS FOR TRANSFORMERS.
- C158 C2-31 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS.
- C159 C2-32 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH.
- C160 C2-33 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO.
- C161 C2-34 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS.
- C162 C2-35 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS.
- C163 C2-36 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS.
- C164 C2-37 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH 3 PHASE TRANSFORMERS.
- C165 C2-38 DO YOU INSPECT 3 PHASE TRANSFORMERS.
- C166 C2-39 DO YOU CLEAN OR LUBRICATE 3 PHASE TRANSFORMERS.
- C167 C2-40 DO YOU ADJUST 3 PHASE TRANSFORMERS.
- C168 C2-41 DO YOU TROUBLESHOOT 3 PHASE TRANSFORMERS.
- C169 C2-42 DO YOU REMOVE OR REPLACE COMPLETE 3 PHASE TRANSFORMER.
- C170 C2-43 DO YOU REMOVE OR REPLACE 3 PHASE TRANSFORMER PARTS, SUCH AS A WINDING.
- C171 C3-01 DO YOU USE OR REFER TO PERMANENT MAGNETS.
- C172 C3-02 DO YOU USE OR REFER TO TEMPORARY MAGNETS.
- C173 C3-03 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS.
- C174 C3-04 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS.
- C175 C3-05 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS.

C176 C3-06 DO YOU USE OR REFER TO RESIDUAL MAGNETISM.
C177 C3-07 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX.
C178 C3-08 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM.
C179 C3-09 DO YOU USE OR REFER TO THE DOMAIN THEORY OF MAGNETISM.
C180 C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION.
C181 C3-11 DO YOU USE OR REFER TO FLUX DENSITY.
C182 C3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT FOR MAGNETIC POLES, LIKE POLES REPEL AND UNLIKE POLES ATTRACT.
C183 C3-13 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE DIRECTION OF MAGNETIC FIELDS ABOUT STRAIGHT WIRES.
C184 C3-14 DO YOU USE THE LEFT THUMB RULE TO FIND THE NORTH POLE OF A CURRENT CARRYING COIL.
0 RCL CIRCUITS, SERIES AND PARALLEL
RESONANCE (TIME CONSTANTS), AND FILTERS
D185 D1-01 DO YOU WORK WITH RC, LR, OR RCL CIRCUITS ON YOUR PRESENT JOB.
D186 D1-02 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS.
D187 D1-03 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS.
D188 D1-04 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS.
D189 D1-05 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS.
D190 D1-06 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL CIRCUITS.
D191 D1-07 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS.
D192 D1-08 DO YOU USE OR REFER TO TRUE POWER (PT) WHEN WORKING WITH RCL CIRCUITS.
D193 D1-09 DO YOU USE OR REFER TO MAXIMUM POWER (PA) WHEN WORKING WITH RCL CIRCUITS.
D194 D1-10 DO YOU USE OR REFER TO AVERAGE POWER (PAVE) WHEN WORKING WITH RCL CIRCUITS.
D195 D1-11 DO YOU USE OR REFER TO APPARENT POWER (PA) WHEN WORKING WITH RCL CIRCUITS.
D196 D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS.
D197 D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH RCL CIRCUITS.
D198 D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS.
D199 D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH RCL CIRCUITS.
D200 D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS.
D201 D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS.
D202 D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS.
D203 D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS.
D204 D1-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS.
D205 D1-21 DO YOU DETERMINE VALUES OF TRIGONOMETRIC FUNCTIONS USING FORMULAS; SINE OF AN ANGLE = OPPOSITE SIDE DIVIDED BY HYPOTENUSE.
D206 D1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS.
D207 D1-23 DO YOU CALCULATE TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS.
D208 D1-24 DO YOU CALCULATE PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS.
D209 D1-25 DO YOU CALCULATE TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS.
D210 D1-26 DO YOU CALCULATE IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS.
D211 D1-27 DO YOU CALCULATE APPARENT POWER (PA) FOR SERIES RCL CIRCUITS.
D212 D1-28 DO YOU CALCULATE TRUE POWER (PT) FOR SERIES RCL CIRCUITS.
D213 D1-29 DO YOU CALCULATE POWER FACTORS (PF) FOR SERIES RCL CIRCUITS.
D214 D1-30 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RCL CIRCUITS.
D215 D1-31 DO YOU CALCULATE IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS.
D216 D1-32 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING THE ASSUMED VOLTAGE METHOD.
D217 D1-33 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING OHM'S LAW.
D218 D1-34 DO YOU CHECK CAPACITORS USING OHMMETERS.
D219 D1-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION.
D220 D1-36 DO YOU CHECK INDUCTORS USING OHMMETERS.
D221 D1-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION.
D222 D1-38 DO YOU USE OR REFER TO THE GENERAL RULE THAT $\theta_{\text{VOLTAGE}} = 0$, $\text{PF} = 1$, AND $\text{PA} = \text{PT}$ FOR RESONANT CIRCUITS.
D223 D1-39 DO YOU CALCULATE RESONANT FREQUENCIES FOR RCL CIRCUITS.
D224 D1-40 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT FREQUENCY FOR SERIES RCL CIRCUITS.
D225 D1-41 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT FREQUENCY FOR PARALLEL RCL CIRCUITS.
D226 D1-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 PERCENT OF THE PEAK CURRENT VALUE.

0227 01-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO Q.
0228 01-44 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT, OR PHASE ANGLES FOR RCL CIRCUITS.
0229 02-01 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO SERIES OR PARALLEL RESONANCE CIRCUITS OR TIME CONSTANTS.
0230 02-02 DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS.
0231 02-03 DO YOU WORK WITH, USE, OR REFER TO AVAILABLE VOLTAGE.
0232 02-04 DO YOU WORK WITH, USE, OR REFER TO TRANSIENT INTERVALS.
0233 02-05 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5) TIME CONSTANTS (TC).
0234 02-06 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS.
0235 02-07 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUITS CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LR CIRCUITS.
0236 02-08 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR RC OR LR CIRCUITS.
0237 02-09 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN A SPECIFIC TIME.
0238 02-10 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER FIVE (5) TIME CONSTANTS.
0239 03-01 DO YOU WORK WITH CIRCUITS USED AS FILTERS ON YOUR PRESENT JOB.
0240 03-02 DO YOU INSPECT FILTER CIRCUITS.
0241 03-03 DO YOU CLEAN FILTER CIRCUITS.
0242 03-04 DO YOU ALIGN OR ADJUST FILTER CIRCUITS.
0243 03-05 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT.
0244 03-06 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF FILTER CIRCUITS.
0245 03-07 DO YOU REMOVE OR REPLACE THE COMPLETE FILTER CIRCUIT.
0246 03-08 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF FILTER CIRCUITS.
0247 03-09 DO YOU WORK ON LOW PASS FILTERS.
0248 03-10 DO YOU WORK ON HIGH PASS FILTERS.
0249 03-11 DO YOU WORK ON BANDPASS FILTERS.
0250 03-12 DO YOU WORK ON DON'T REMEMBER WHICH TYPE OF FILTER ON BAND-REJECT FILTERS.
0251 03-13 DO YOU WORK ON L-SECTION FILTER CONFIGURATIONS.
0252 03-14 DO YOU WORK WITH T-SECTION FILTER CONFIGURATIONS.
0253 03-15 DO YOU WORK WITH T-SECTION FILTER CONFIGURATIONS.
0254 03-16 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATIONS.

0255 03-17 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF FILTER CONFIGURATIONS.
0256 03-18 ARE PARALLEL RESONANT CIRCUITS USED IN FILTERS YOU WORK WITH.
0257 03-19 ARE SERIES-PARALLEL CIRCUITS USED IN FILTERS YOU WORK WITH.
0258 03-20 ARE SERIES RESONANT CIRCUITS USED IN FILTERS YOU WORK WITH.
0259 03-21 ARE DON'T REMEMBER WHICH TYPE OF BASIC CIRCUIT USED IN FILTERS YOU WORK WITH.
0260 03-22 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC FILTERS.

E COUPLING, SOLDERING, AND RELAYS

E261 E1-01 DO YOU WORK WITH COUPLING DEVICES ON YOUR PRESENT JOB.
E262 E1-02 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH KC COUPLING.
E263 E1-03 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH IMPEDANCE COUPLING.
E264 E1-04 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH TRANSFORMER COUPLING.
E265 E1-05 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THE RC COUPLING FUNCTIONS.
E266 E1-06 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THE IMPEDANCE COUPLING FUNCTIONS.
E267 E1-07 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THE TRANSFORMER COUPLING FUNCTIONS.
E268 E1-08 DO YOU WORK WITH DIRECTLY COUPLED CIRCUITS.
E269 E1-09 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS.
E270 E1-10 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS.
E271 E1-11 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS.
E272 E1-12 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF COUPLING CIRCUIT.
E273 E2-01 ON YOUR PRESENT JOB DO YOU PERFORM SOLDERING TECHNIQUES OR INSPECT OR EVALUATE SOLDERED CONNECTIONS.
E274 E2-02 DO YOU SELECT TYPE OF SOLDER TO USE.
E275 E2-03 DO YOU ADD FLUX TO CONNECTIONS.
E276 E2-04 DO YOU CLEAN CONNECTIONS USING SOLVENTS.
E277 E2-05 DO YOU STRIP INSULATION FROM WIRES.
E278 E2-06 DO YOU CONNECT OR DISCONNECT HEAT SINKS.
E279 E2-07 DO YOU BEND OR SHAPE WIRES OR LEADS.
E280 E2-08 DO YOU CUT WIRES.
E281 E2-09 DO YOU FILE OR SHAPE SOLDERING IRON TIPS.
E282 E2-10 DO YOU TIN SOLDERING IRON TIPS.

E283 E2-11 DO YOU CLEAN SOLDERING IRON TIPS.
 E284 E2-12 DO YOU CLEAN ELECTRICAL SURFACES USING ERASERS.
 E285 E2-13 DO YOU TIN OR PRE-TIN CONDUCTORS.
 E286 E2-14 DO YOU INSPECT SOLDERED CONNECTIONS.
 E287 E2-15 DO YOU DESOLDER CONNECTIONS BY WICKING.
 E288 E2-16 DO YOU DESOLDER CONNECTIONS USING VACUUM
 DESOLDERING TOOLS.
 E289 E2-17 DO YOU CUT COMPONENT LEADS TO REMOVE COMPONENTS.
 E290 E2-18 DO YOU CRUSH COMPONENTS FOR REMOVAL.
 E291 E2-19 DO YOU MAKE HARDWIRE CONNECTIONS.
 E292 E2-20 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS
 E293 E2-21 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR
 CAPACITORS ON PRINTED CIRCUIT BOARDS
 E294 E2-22 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE
 DIODES OR TRANSISTORS ON PRINTED CIRCUIT BOARDS
 E295 E3-01 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB
 E296 E3-02 DO YOU ADJUST RELAYS
 E297 E3-03 DO YOU CLEAN RELAYS
 E298 E3-04 DO YOU INSPECT RELAYS
 E299 E3-05 DO YOU REMOVE OR REPLACE COMPLETE RELAYS
 E300 E3-06 DO YOU REMOVE OR REPLACE PARTS OR RELAYS
 E301 E3-07 DO YOU TROUBLESHOOT RELAYS
 E302 E3-08 DO YOU STRAIGHTEN RELAY CONTACTS
 E303 E3-09 DO YOU PERFORM TASKS ON RELAY CONTACTS
 E304 E3-10 DO YOU PERFORM TASKS ON RELAY CONES
 E305 E3-11 DO YOU PERFORM TASKS ON RELAY COILS
 E306 E3-12 DO YOU PERFORM TASKS ON RELAY ARMATURES
 E307 E3-13 DO YOU PERFORM TASKS ON RELAY SPRINGS
 E308 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW
 (SPST), NORMALLY OPER (NO) SCHEMATIC SYMBOLS FOR RELAYS
 E309 E3-15 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW
 (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS
 E310 E3-16 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW
 (SPDT) SCHEMATIC SYMBOLS FOR RELAYS
 E311 E3-17 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW
 (DPDT) SCHEMATIC SYMBOLS FOR RELAYS
 E312 E3-18 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS SCHEMATIC
 SYMBOLS FOR RELAYS
 E313 E3-19 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY
 MEASURING RESISTANCE
 F MICROPHONES, SPEAKERS, AND OSCILLOSCOPES
 F314 F1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING
 WITH MICROPHONES
 F315 F1-02 DO YOU INSPECT MICROPHONES
 F316 F1-03 DO YOU CLEAN MICROPHONES
 F317 F1-04 DO YOU OPERATE MICROPHONES
 F318 F1-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE
 CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT
 PARTS OR MICROPHONES
 F319 F1-06 DO YOU TROUBLESHOOT DOWN TO MICROPHONE PARTS
 F320 F1-07 DO YOU REMOVE OR REPLACE COMPLETE MICROPHONES
 F321 F1-08 DO YOU REMOVE OR REPLACE MICROPHONE PARTS
 F322 F1-09 DO YOU PERFORM TASKS ON CARBON MICROPHONES
 F323 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES
 F324 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES
 F325 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES
 F326 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES
 F327 F2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING
 WITH SPEAKERS
 F328 F2-02 DO YOU INSPECT SPEAKERS
 F329 F2-03 DO YOU CLEAN SPEAKERS
 F330 F2-04 DO YOU OPERATE SPEAKERS
 F331 F2-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE
 CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT
 PARTS OF SPEAKERS
 F332 F2-06 DO YOU TROUBLESHOOT DOWN TO SPEAKER PARTS
 F333 F2-07 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS
 F334 F2-08 DO YOU REMOVE OR REPLACE SPEAKER PARTS
 F335 F2-09 DO YOU PERFORM ANY TASKS ON SPEAKER CONES
 F336 F2-10 DO YOU PERFORM ANY TASKS ON SPEAKER SPIDERS
 F337 F2-11 DO YOU PERFORM ANY TASKS ON SPEAKER FIELD COILS
 F338 F2-12 DO YOU PERFORM ANY TASKS ON SPEAKER VOICE COILS
 F339 F2-13 DO YOU PERFORM ANY TASKS ON SPEAKER PERMANENT MAGNETS
 F340 F2-14 DO YOU PERFORM ANY TASKS ON SPEAKER ELECTROMAGNETS
 F341 F2-15 DO YOU PERFORM ANY TASKS ON SPEAKER SOFT IRON CORES
 F342 F3-01 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB
 F343 F3-02 DO YOU USE OSCILLOSCOPES TO PERFORM OPERATIONAL
 CHECKS
 F344 F3-03 DO YOU USE OSCILLOSCOPES TO PERFORM ALIGNMENTS OR
 ADJUSTMENTS
 F345 F3-04 DO YOU USE OSCILLOSCOPES TO TROUBLESHOOT ELECTRONIC
 CIRCUITS
 F346 F3-05 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCY
 F347 F3-06 DO YOU USE OSCILLOSCOPES TO MEASURE TIME
 F348 F3-07 DO YOU USE OSCILLOSCOPES TO OBSERVE LISAIOUS PATTERNS
 F349 F3-08 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE
 UTILIZING ATTENUATOR PROBES
 F350 F3-09 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME
 MEASUREMENTS USING DELAY TIME MULTIPLIERS
 F351 F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGE
 F352 F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE
 SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS
 F353 F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGE
 G SEMICONDUCTOR DIODES, TRANSISTORS, AND TRANSISTOR
 AMPLIFIERS
 G354 G1-01 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT
 JOB
 G355 G1-02 DO YOU INSPECT DIODES
 G356 G1-03 DO YOU REMOVE OR REPLACE DIODES
 G357 G1-04 DO YOU CHECK DIODES USING AN INSTRUMENT

INTERPRET CIRCUIT DIAGRAMS

G358 G1-05 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES

G359 G1-06 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE

G360 G1-07 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES

G361 G1-08 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES

G362 G1-09 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON THEIR PHYSICAL APPEARANCE

G363 G1-10 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF DOPING ON CURRENT FLOW

G364 G1-11 DO YOU USE OR REFER TO MEASUREMENTS OF FORWARD BIAS RESISTANCE

G365 G1-12 DO YOU USE OR REFER TO DIODE COLOR CODING

G366 G1-13 DO YOU USE OR REFER TO CENTRIFUGAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS

G367 G1-14 DO YOU USE OR REFER TO CENTRIPETAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS

G368 G1-15 DO YOU USE OR REFER TO DIODE NUMBERING SYSTEM, SUCH AS IN 538

G369 G1-16 DO YOU USE OR REFER TO KINETIC ENERGY OF AN ELECTRON MOVING IN ORBIT

G370 G1-17 DO YOU USE OR REFER TO POTENTIAL ENERGY OF AN ELECTRON MOVING IN ORBIT

G371 G1-18 DO YOU USE OR REFER TO MEASUREMENTS OF REVERSE BIAS RESISTANCE

G372 G1-19 DO YOU USE OR REFER TO NUMBER OF ELECTRONS IN A PARTICULAR SHELL OR ORBIT

G373 G1-20 DO YOU USE OR REFER TO PERMISSIBLE ENERGY LEVELS OF AN ORBITING ELECTRON

G374 G1-21 DO YOU USE OR REFER TO FORBIDDEN ENERGY LEVELS OF AN ORBITING ELECTRON

G375 G1-22 DO YOU USE OR REFER TO VALENCE ELECTRONS (THOSE IN THE OUTERMOST SHELL)

G376 G1-23 DO YOU USE OR REFER TO ATOMIC NUMBER (TOTAL NUMBER OF ELECTRONS IN ATOM)

G377 G1-24 DO YOU USE OR REFER TO SYMBOLS ON THE DIODE WHICH INDICATE THE CATHODE END

G378 G1-25 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON

G379 G1-26 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE INCREASES RESISTANCE DECREASES)

G380 G1-27 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES, SUCH AS VOLTAGE - CURRENT

G381 G1-28 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR

G382 G1-29 DO YOU USE OR REFER TO VALENCE BAND IN SEMICONDUCTOR MATERIALS

G383 G1-30 DO YOU USE OR REFER TO FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS

G384 G1-31 DO YOU USE OR REFER TO CONDUCTION BAND IN SEMICONDUCTOR MATERIALS

G385 G1-32 DO YOU USE OR REFER TO COVALENT BONDING IN SEMICONDUCTOR MATERIALS

G386 G1-33 DO YOU USE OR REFER TO ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS

G387 G1-34 DO YOU USE OR REFER TO ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS

G388 G1-35 DO YOU USE OR REFER TO DONOR IMPURITY IN SEMICONDUCTORS

G389 G1-36 DO YOU USE OR REFER TO ACCEPTOR IMPURITY IN SEMICONDUCTORS

G390 G1-37 DO YOU USE OR REFER TO P-TYPE SEMICONDUCTOR MATERIAL

G391 G1-38 DO YOU USE OR REFER TO N-TYPE SEMICONDUCTOR MATERIAL

G392 G1-39 DO YOU USE OR REFER TO MAJORITY CARRIERS IN SEMICONDUCTORS

G393 G1-40 DO YOU USE OR REFER TO MINORITY CARRIERS IN SEMICONDUCTORS

G394 G1-41 DO YOU USE OR REFER TO JUNCTION RECOMBINATION IN SEMICONDUCTORS

G395 G1-42 DO YOU USE OR REFER TO DEPLETION REGION IN SEMICONDUCTORS

G396 G1-43 DO YOU USE OR REFER TO RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL

G397 G1-44 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES

G398 G1-45 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS

G399 G1-46 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION

G400 G1-47 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS

G401 G1-48 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT DIODE RATINGS

G402 G1-49 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS

G403 G1-50 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE DIODE RATINGS

G404 G2-01 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB.

G405 G2-02 DO YOU REMOVE OR REPLACE TRANSISTORS

G406 G2-03 DO YOU CHECK TRANSISTORS USING AN INSTRUMENT

G407 G2-04 DO YOU USE OR REFER TO EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS

G408 G2-05 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS

G409 G2-06 DO YOU USE OR REFER TO EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS

G410 G2-07 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC)

RESISTANCE MEASUREMENTS
G411 G2-08 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE
PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION
G412 G2-09 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE
PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION
G413 G2-10 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE
TRANSISTOR STRUCTURE (COLLECTOR, BASE AND EMITTER)
G414 G2-11 DO YOU USE OR REFER TO LEAKAGE CURRENT (ICBO) IN A
TRANSISTOR
G415 G2-12 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS
G416 G2-13 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS
Q1, Q2, Q3, ETC
G417 G2-14 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION
INFORMATION
G418 G2-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
TRANSISTOR BASE CURRENT IS NORMALLY SIGNIFICANTLY
SMALLER THAN THE EMITTER CURRENT IE (USUALLY IS BEING 2 TO
8 PERCENT OF IE)
G419 G2-16 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER
BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR
TRANSISTORS
G420 G2-17 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT
ICBO IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES
G421 G2-18 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC
CURVES
G422 G2-19 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS
G423 G2-20 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS
G424 G2-21 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS
G425 G2-22 DO YOU CALCULATE BETA TRANSISTOR GAINS
G426 G2-23 DO YOU CALCULATE ALPHA TRANSISTOR GAINS
G427 G2-24 DO YOU CALCULATE GAMMA TRANSISTOR GAINS
G428 G3-01 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR
PRESENT JOB
G429 G3-02 DO YOU INSPECT TRANSISTOR AMPLIFIERS
G430 G3-03 DO YOU ALIGN OR ADJUST TRANSISTOR CIRCUIT LEVEL
G431 G3-04 DO YOU TROUBLESHOOT TO THE AMPLIFIER COMPONENTS
G432 G3-05 DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS
G433 G3-06 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER
G434 G3-07 DO YOU REMOVE OR REPLACE AMPLIFIER COMPONENTS
G435 G3-08 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN
COLLECTOR CURRENT WHICH RESULTS FROM A CHANGE IN BASE
CURRENT
G436 G3-09 DO YOU USE OR REFER TO (COMMON EMITTER) THE
CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN
COLLECTOR CURRENT WHICH RESULTS FROM A SPECIFIC CHANGE IN
BASE CURRENT
G437 G3-10 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN
COLLECTOR VOLTAGE WHICH RESULTS FROM A CHANGE IN BASE
CURRENT
G438 G3-11 DO YOU USE OR REFER TO (COMMON EMITTER) THE
CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN
COLLECTOR VOLTAGE WHICH RESULTS FROM A SPECIFIC CHANGE IN
BASE CURRENT
G439 G3-12 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN
BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL
G440 G3-13 DO YOU USE OR REFER TO (COMMON EMITTER) THE
CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN
BASE CURRENT WHICH RESULTS FROM A SPECIFIC INPUT SIGNAL
G441 G3-14 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR
CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A
LOAD-LINE ON A TRANSISTOR CHARACTERISTIC CURVE)
G442 G3-15 DO YOU USE OR REFER TO THE OPERATING POINT Q
(QUIESCENT POINT) FOR A TRANSISTOR
G443 G3-16 DO YOU CALCULATE THE SPECIFIC QUIESCENT POINT FOR A
PARTICULAR TRANSISTOR
G444 G3-17 DO YOU MEASURE VOLTAGE GAIN USED IN THE COMMON
EMITTER CONFIGURATION
G445 G3-18 DO YOU MEASURE CURRENT GAIN USED IN THE COMMON
EMITTER CONFIGURATION
G446 G3-19 DO YOU MEASURE POWER GAIN USED IN THE COMMON
EMITTER CONFIGURATION
G447 G3-20 DO YOU CALCULATE THE VOLTAGE GAIN FOR SPECIFIC TRAN-
SISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE
IN BASE-EMITTER VOLTAGE INTO THE CHANGE THE BASE COLLECTOR
VOLTAGE TO DETERMINE THE VOLTAGE GAIN
G448 G3-21 DO YOU CALCULATE THE CURRENT GAIN FOR SPECIFIC
TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE
CHANGE IN BASE CURRENT INTO THE CHANGE IN COLLECTOR
CURRENT TO DETERMINE THE CURRENT GAIN
G449 G3-22 DO YOU CALCULATE THE POWER GAIN FOR A SPECIFIC
TRANSISTOR USING A FORMULA THAT IS, DO YOU MULTIPLY THE
CURRENT GAIN TIMES THE VOLTAGE GAIN TO DETERMINE THE
POWER GAIN
G450 G3-23 DO YOU NEED TO KNOW THAT MORE COLLECTOR CURRENT IS
GENERATED WITH LESS COLLECTOR VOLTAGE AS TEMPERATURE
INCREASES (THIS AFFECTS THE STATIC OPERATING POINT Q) OF
THE TRANSISTOR)
G451 G3-24 DO YOU COMPUTE THE STATIC OPERATING POINT (Q) OF A
TRANSISTOR AT DIFFERENT TEMPERATURES
G452 G3-25 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
EMITTER (EMITTER) RESISTOR STABILIZATION
G453 G3-26 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH SELF-
BIAS STABILIZATION
G454 G3-27 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
THERMISTOR STABILIZATION
G455 G3-28 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
FORWARD BIAS DIODE STABILIZATION
G456 G3-29 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO
THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
REVERSE BIAS DIODE STABILIZATION

G457 G3-30 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION

G458 G3-31 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM EMITTER (SWAMPING) RESISTOR STABILIZATION

G459 G3-32 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM SELF-BIAS STABILIZATION

G460 G3-33 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THERMISTOR STABILIZATION

G461 G3-34 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM FORWARD BIAS DIODE STABILIZATION

G462 G3-35 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM REVERSE BIAS DIODE STABILIZATION

G463 G3-36 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM DOUBLE DIODE STABILIZATION

G464 G3-37 DO YOU IDENTIFY AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS

G465 G3-38 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF AMPLITUDE DISTORTION

G466 G3-39 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS

G467 G3-40 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS

G468 G3-41 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF PHASE DISTORTION

G469 G3-42 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF FREQUENCY DISTORTION

G470 G3-43 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS IN THE COMMON COLLECTOR CONFIGURATION

G471 G3-44 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS

G472 G3-45 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS

G473 G3-46 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS

G474 G3-47 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS

G475 G3-48 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS

G476 G3-49 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS

H SOLID STATE SPECIAL PURPOSE DEVICES, POWER SUPPLIES, AND OSCILLATORS

H477 H1-01 DO YOU USE OR REFER TO VARACTORS

H478 H1-02 DO YOU USE OR REFER TO TUNNEL DIODES

H479 H1-03 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTORS (FET)

H480 H1-04 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTORS

H481 H1-05 DO YOU USE OR REFER TO ZENER DIODES

H482 H1-06 DO YOU USE OR REFER TO INTEGRATED CIRCUITS

H483 H2-01 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES

H484 H2-02 DO YOU INSPECT POWER SUPPLIES

H485 H2-03 DO YOU CLEAN POWER SUPPLIES

H486 H2-04 DO YOU ALIGN OR ADJUST POWER SUPPLIES

H487 H2-05 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL

H488 H2-06 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS

H489 H2-07 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES

H490 H2-08 DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS

H491 H2-09 DO YOU WORK WITH HALF-WAVE RECTIFIERS

H492 H2-10 DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS

H493 H2-11 DO YOU WORK WITH BRIDGE RECTIFIERS

H494 H2-12 DO YOU WORK WITH THREE-PHASE RECTIFIERS

H495 H2-13 DO YOU USE OR REFER TO INPUT VOLTAGE

H496 H2-14 DO YOU USE OR REFER TO INPUT FREQUENCY

H497 H2-15 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGE

H498 H2-16 DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGE

H499 H2-17 DO YOU USE OR REFER TO RIPPLE AMPLITUDE

H500 H2-18 DO YOU USE OR REFER TO RIPPLE FREQUENCY

H501 H2-19 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE

H502 H2-20 DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS

H503 H2-21 DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGE

H504 H2-22 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE FILTERS

H505 H2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE FILTERS

H506 H2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE INPUT L-TYPE FILTERS

H507 H2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE INPUT L-TYPE FILTERS

H508 H2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE FILTERS

H509 H2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE FILTERS

H510 H2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY DON'T REMEMBER WHICH TYPE OF FILTER

H511 H2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF FILTER WITH A DIFFERENT TYPE FILTER

H512 H3-01 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB

H513 H3-02 DO YOU INSPECT OSCILLATORS

H514 H3-03 DO YOU ALIGN OR ADJUST OSCILLATORS

H515 H3-04 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS

H516 H3-05 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS

H517 H3-06 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL

H518 H3-07 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS

H519 H3-08 DO YOU USE OR REFER TO FEEDBACK

H520 H3-09 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)

H521 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY

H522 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY

H523 H3-12 DO YOU USE OR REFER TO DAMPING

H524 H3-13 DO YOU USE OR REFER TO REGENERATIVE FEEDBACK

H525 H3-14 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT

1526 H3-15 DO YOU USE OR REFER TO CRITICAL DAMPING
1527 H3-16 DO YOU USE OR REFER TO UNDER DAMPING
1528 H3-17 DO YOU USE OR REFER TO OVER DAMPING
1529 H3-18 DO YOU WORK WITH OSCILLATORS WHICH USE LC TANK
1530 H3-19 DO YOU WORK WITH OSCILLATORS WHICH USE RC NETWORKS AS
FDD
1531 H3-20 DO YOU WORK WITH OSCILLATORS WHICH USE CRYSTALS AS
FDD
1532 H3-21 DO YOU WORK WITH OSCILLATORS WHICH USE DON'T REMEMBER
WHICH TYPE OF FDD
1533 H3-22 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL
OSCILLATORS
1534 H3-23 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS
1535 H3-24 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS
1536 H3-25 DO YOU WORK WITH CLAP SINUSOIDAL OSCILLATORS
1537 H3-26 DO YOU WORK WITH BUTLER SINUSOIDAL OSCILLATORS
1538 H3-27 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF
OSCILLATORS
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MULTIPLIERS, LIMITERS, CLAMPERS, AND ELECTRON TUBES
1539 H1-01 DO YOU WORK WITH MULTIPLIERS IN YOUR PRESENT JOB
1540 H1-02 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS
1541 H1-03 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING
CIRCUITS
1542 H1-04 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS
1543 H1-05 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING
CIRCUITS
1544 H1-06 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING
CIRCUIT COMPONENTS
1545 H1-07 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR
SHAPING CIRCUITS
1546 H1-08 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING
COMPONENTS
1547 H1-09 DO YOU WORK WITH MULTIPLIERS WHICH CONTAIN LC TANK
CIRCUITS
1548 H1-10 DO YOU WORK WITH MULTIPLIERS WHICH CONTAIN RC
NETWORKS
1549 H1-11 DO YOU WORK WITH MULTIPLIERS WHICH CONTAIN
CRYSTALS
1550 H1-12 DO YOU WORK WITH MULTIPLIERS WHICH CONTAIN DON'T
REMEMBER WHICH TYPE OF FDD
1551 H1-13 DO YOU WORK WITH ASTABLE MULTIPLIERS
1552 H1-14 DO YOU WORK WITH MONOSTABLE MULTIPLIERS
1553 H1-15 DO YOU WORK WITH BISTABLE MULTIPLIERS
1554 H1-16 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE
MULTIPLIERS
1555 H2-01 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR
PRESENT JOB
1556 H2-02 DO YOU WORK WITH SERIES DIODE LIMITERS
1557 H2-03 DO YOU WORK WITH SHUNT DIODE LIMITERS
1558 H2-04 DO YOU WORK WITH LIMITERS WITH BIAS
1559 H2-05 DO YOU WORK WITH ZENER DIODE LIMITERS
1560 H2-06 DO YOU WORK WITH TRANSISTOR LIMITERS
1561 H2-07 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF LIMITERS
1562 H2-08 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS
1563 H2-09 DO YOU WORK WITH DIODE CLAMPING CIRCUITS WITH BIAS
1564 H2-10 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF CLAMPING
CIRCUIT
1565 H3-01 IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH
CONTAINS ELECTRON TUBES
1566 H3-02 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD
1567 H3-03 DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES
1568 H3-04 DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES
1569 H3-05 DO YOU USE SCOPES TO CHECK ELECTRON TUBES
1570 H3-06 DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES
1571 H3-07 DO YOU USE OR REFER TO CUTOFF
1572 H3-08 DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING
1573 H3-09 DO YOU USE OR REFER TO PEAK CURRENT RATING
1574 H3-10 DO YOU USE OR REFER TO TRANSIT TIME
1575 H3-11 DO YOU USE OR REFER TO PLATE DISSIPATION RATING
1576 H3-12 DO YOU USE OR REFER TO SATURATION
1577 H3-13 DO YOU USE OR REFER TO DC PLATE RESISTANCE
1578 H3-14 DO YOU COMPUTE ACTUAL VALUES OF THE DC PLATE
RESISTANCE FOR ELECTRON TUBES
1579 H3-15 DO YOU USE OR REFER TO PLATE VOLTAGE
1580 H3-16 DO YOU USE OR REFER TO PLATE CURRENT
1581 H3-17 DO YOU USE OR REFER TO GRID VOLTAGE
1582 H3-18 DO YOU USE OR REFER TO GRID CURRENT
1583 H3-19 DO YOU USE OR REFER TO CATHODE VOLTAGE
1584 H3-20 DO YOU USE OR REFER TO CATHODE CURRENT
1585 H3-21 DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION
FACTOR (THE AMPLIFICATION FACTOR FOR TRIODES IS DEFINED AS
THE RATIO OF CHANGE IN PLATE VOLTAGE TO A CHANGE IN GRID
VOLTAGE)
1586 H3-22 DO YOU CALCULATE ACTUAL VALUES OF TRIODE
AMPLIFICATION FACTORS
1587 H3-23 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE,
ETC) AMPLIFICATION FACTORS
1588 H3-24 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE
(G_m WHICH IS MEASURED IN MHOS)
1589 H3-25 DO YOU CALCULATE ACTUAL VALUES OF ELECTRON TUBE
TRANSCONDUCTANCES
1590 H3-26 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER
CALLED AC PLATE RESISTANCE
1591 H3-27 DO YOU CALCULATE ACTUAL VALUES OF AC PLATE
RESISTANCE
1592 H3-28 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE
CAPACITANCE
1593 H3-29 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR
WORK WITH ELECTRON TUBES
1594 H3-30 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE
VOLTAGE FOR A SPECIFIED BIAS

J595	J3-J31 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE CURRENT FOR A SPECIFIED BIAS	J621	J2-06 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH THYRATONS ARE USED
J596	J3-32 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR CUTOFF	J622	J2-07 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)
J597	J3-33 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR SATURATION	J623	J2-08 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)
J598	J3-34 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER GAIN	J624	J2-09 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)
J599	J3-35 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER EFFICIENCY		
J600	J3-36 DO YOU USE TEST TUBE CHECKERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	J625	J2-10 DO YOU USE OR REFER TO PHOSPHOR SCREENS
J601	J3-37 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	J626	J2-11 DO YOU USE OR REFER TO AQUADAG COATINGS
J602	J3-38 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	J627	J2-12 DO YOU USE OR REFER TO ELECTRON OPTICS
J603	J3-39 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	J628	J2-13 DO YOU USE OR REFER TO PERSISTENCE
J604	J3-40 DO YOU CALCULATE ANY ELECTRON TUBE CAPACITANCES SUCH AS INPUT CAPACITANCE	J629	J2-14 DO YOU USE OR REFER TO DECAY TIMES
J605	J3-41 DO YOU USE OR REFER TO TUBE SOCKET NOTATION	J630	J2-15 DO YOU USE OR REFER TO FLUORESCENCE
J606	J3-42 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS	J631	J2-16 DO YOU USE OR REFER TO PHOSPHORESCENCE
J607	J3-43 DO YOU USE OR REFER TO THE TYPE OF MATERIAL OR THE OPERATING TEMPERATURE OF THE EMITTING SURFACE IN THE ELECTRON TUBES YOU WORK ON	J632	J3-01 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB
J608	J3-44 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS	J633	J3-02 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS
		J634	J3-03 DO YOU PERFORM TASKS ON FREQUENCY MIXERS
		J635	J3-04 DO YOU USE OR REFER TO THE METEMODYNING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS
		J636	J3-05 DO YOU PERFORM TASKS ON REACTANCE MODULATORS
		J637	J3-06 DO YOU PERFORM TASKS ON MODULATED OSCILLATORS
		K	AM SYSTEMS, FM SYSTEMS, AND NUMBERING SYSTEMS
J	ELECTRON TUBE AMPLIFIERS AND CIRCUITS, SPECIAL PURPOSE ELECTRON TUBES, METEMODYNING, MODULATION,	K638	K1-01 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB
J609	J1-01 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB	K639	K1-02 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS
J610	J1-02 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS	K640	K1-03 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS
		K641	K1-04 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS
J611	J1-03 DO YOU TROUBLESHOOT OR REPAIR PARAPHRASE AMPLIFIERS	K642	K1-05 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS
J612	J1-04 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	K643	K1-06 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE COMPONENTS
J613	J1-05 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS	K644	K1-07 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS
J614	J1-06 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS	K645	K1-08 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE COMPONENTS
J615	J1-07 DO YOU TROUBLESHOOT OR REPAIR DON'T KNOW WHICH TYPE OF AMPLIFIER	K646	K1-09 DO YOU PERFORM TASKS ON RF OSCILLATORS
J616	J2-01 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE)	K647	K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS
J617	J2-02 DO YOU WORK WITH CATHODE-RAY TUBES	K648	K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS
J618	J2-03 DO YOU USE OR REFER TO THE CHARACTERISTICS OF BEAM POWER TUBES	K649	K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS
J619	J2-04 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH BEAM POWER TUBES ARE USED	K650	K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS
J620	J2-05 DO YOU USE OR REFER TO THE CHARACTERISTICS OF THYRATONS	K651	K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS
		K652	K1-15 DO YOU PERFORM TASKS ON DETECTORS
		K653	K1-16 DO YOU PERFORM TASKS ON DON'T REMEMBER WHICH AM STAGE
		K654	K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS
		K655	K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS

6056	K1-19	DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS	6694	K3-10	DO YOU ADD OCTAL NUMBERS TO GET A SUM
6057	K1-20	DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS			
6058	K1-21	DO YOU USE OR REFER TO 2ND HARMONIC DISTORTION			
6059	K1-22	DO YOU USE OR REFER TO BANDPASS DISTORTION			
6060	K1-23	DO YOU USE OR REFER TO SQUARE LAW DISTORTION			
6061	K1-24	DO YOU USE OR REFER TO CO-CHANNEL INTERFERENCE			
6062	K1-25	DO YOU USE OR REFER TO IMAGE FREQUENCIES IN RECEIVERS			
6063	K1-26	DO YOU USE OR REFER TO SIGNAL TO IMAGE RATIOS OR IMAGE REJECTION RATIOS			
6064	K1-27	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM TRANSMITTER SCHEMATIC DIAGRAMS			
6065	K1-28	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM RECEIVER SCHEMATIC DIAGRAMS			
6066	K2-01	DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB			
6067	K2-02	DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS			
6068	K2-03	DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS			
6069	K2-04	DO YOU ALIGN FM TRANSMIT OR RECEIVE SYSTEMS			
6070	K2-05	DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS			
6071	K2-06	DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS			
6072	K2-07	DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS			
6073	K2-08	DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS			
6074	K2-09	DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS			
6075	K2-10	DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS			
6076	K2-11	DO YOU PERFORM TASKS ON DRIVERS INTERMEDIATE AMPLIFIERS			
6077	K2-12	DO YOU PERFORM TASKS ON POWER AMPLIFIERS			
6078	K2-13	DO YOU PERFORM TASKS ON RF AMPLIFIERS			
6079	K2-14	DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS			
6080	K2-15	DO YOU PERFORM TASKS ON IF AMPLIFIERS			
6081	K2-16	DO YOU PERFORM TASKS ON LIMITERS			
6082	K2-17	DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS			
6083	K2-18	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS			
6084	K2-19	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS			
6085	K3-01	DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS			
6086	K3-02	DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS			
6087	K3-03	DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS			
6088	K3-04	DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS			
6089	K3-05	DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS			
6090	K3-06	DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS			
6091	K3-07	DO YOU ADD BINARY NUMBERS TO GET A SUM			
6092	K3-08	DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD			
6093	K3-09	DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD			
6094	K3-10	DO YOU ADD OCTAL NUMBERS TO GET A SUM			
6095	L1-01	IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS			
6096	L1-02	DO YOU CONSTRUCT TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES			
6097	L1-03	DO YOU CONSTRUCT TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES			
6098	L1-04	DO YOU CONSTRUCT TRUTH TABLES FOR AND OR LOGIC SYMBOLS WITH STATE INDICATORS			
6099	L1-05	DO YOU CONSTRUCT TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS OR GATES			
6100	L1-06	DO YOU USE OR REFER TO TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES			
6101	K1-07	DO YOU USE OR REFER TO TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES			
6102	K1-08	DO YOU USE OR REFER TO TRUTH TABLES FOR AND OR OR LOGIC SYMBOLS WITH STATE INDICATORS			
6103	L1-09	DO YOU USE OR REFER TO TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS			
6104	L1-10	DO YOU USE OR REFER TO LOGIC SYMBOLS FOR AND GATES			
6105	L1-11	DO YOU USE OR REFER TO LOGIC SYMBOLS FOR OR GATES			
6106	L1-12	DO YOU USE OR REFER TO LOGIC SYMBOLS FOR NAND OR NOR GATES			
6107	L1-13	DO YOU USE OR REFER TO LOGIC SYMBOLS FOR EXCLUSIVE OR GATES			
6108	L2-01	IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS			
6109	L2-02	DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUITS			
6110	L2-03	DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS			
6111	L2-04	DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS			
6112	L2-05	DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES			
6113	L2-06	DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS			
6114	L2-07	DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA			
6115	L2-08	DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES			
6116	L2-09	DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS			
6117	L2-10	DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE			
6118	L2-11	DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAMS			
6119	L2-12	DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER			

LOGIC DIAGRAMS	L720 L2-13 DO YOU WORK WITH ASTABLE (FREE RUNNING) MULTIVIBRATORS	L752 L3-20 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER	ING FLIP-FLOPS
	L721 L2-14 DO YOU WORK WITH BISTABLE (FLIP-FLOP) MULTIVIBRATORS	L753 L3-21 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR OTHER TYPES OF COUNTERS	
MULTIVIBRATORS	L722 L2-15 DO YOU WORK WITH MONOSTABLE (ONE-SHOT) MULTIVIBRATORS	L754 L3-22 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS	
	L723 L2-16 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR	L755 L3-23 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES	
SYMBOLS	L724 L2-17 DO YOU USE OR REFER TO SINGLE-SHOT MULTIVIBRATOR	L756 L3-24 DO YOU DETERMINE THE APPROPRIATE AND GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT	
	L725 L2-18 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT DIAGRAMS		
SYMBOLS	L726 L2-19 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES		
	L727 L2-20 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS		
SYMBOLS	L728 L2-21 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC		
	L729 L2-22 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS		
SYMBOLS	L730 L2-23 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS		
	L731 L2-24 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS		
SYMBOLS	L732 L2-25 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP		
	L733 L3-01 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB		
SYMBOLS	L734 L3-02 DO YOU USE OR REFER TO UP-COUNTERS		
	L735 L3-03 DO YOU USE OR REFER TO DOWN-COUNTERS		
SYMBOLS	L736 L3-04 DO YOU USE OR REFER TO SERIAL COUNTERS		
	L737 L3-05 DO YOU USE OR REFER TO PARALLEL COUNTERS		
SYMBOLS	L738 L3-06 DO YOU USE OR REFER TO RING COUNTERS		
	L739 L3-07 DO YOU USE OR REFER TO DECADE COUNTERS		
SYMBOLS	L740 L3-08 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS		
	L741 L3-09 DO YOU USE OR REFER TO DOWN CLOCKS		
SYMBOLS	L742 L3-10 DO YOU USE OR REFER TO UP CLOCKS		
	L743 L3-11 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS		
SYMBOLS	L744 L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-FLOPS		
	L745 L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS		
SYMBOLS	L746 L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS		
	L747 L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER		
SYMBOLS	L748 L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS		
	L749 L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS		
SYMBOLS	L750 L3-18 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS		
	L751 L3-19 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENT-		

M TIMING CIRCUITS, USE OF SIGNAL GENERATORS, MOTORS, AND GENERATORS

M757 M1-01 DO YOU WORK WITH SAWTOOTH WAVE GENERATORS
M758 M1-02 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATORS
M759 M1-03 DO YOU WORK WITH PULSED OSCILLATORS WITH REGENERATIVE FEEDBACK

M760 M1-04 DO YOU WORK WITH PULSED OSCILLATORS WITHOUT REGENERATIVE FEEDBACK

M761 M1-05 DO YOU WORK WITH BLOCKING OSCILLATORS

M762 M1-06 DO YOU USE OR REFER TO RISE TIME

M763 M1-07 DO YOU USE OR REFER TO FALL OR FLYBACK TIME

M764 M1-08 DO YOU USE OR REFER TO SWEEP TIME

M765 M1-09 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS

M766 M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS

M767 M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH WAVEFORMS

M768 M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH WAVEFORMS

M769 M2-01 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB

M770 M2-02 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS

M771 M2-03 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS

M772 M2-04 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY WHILE USING SIGNAL GENERATORS

M773 M2-05 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE COMPONENT WHILE USING SIGNAL GENERATORS

M774 M2-06 DO YOU USE AUDIO SINE-WAVE GENERATORS

M775 M2-07 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE

M776 M2-08 DO YOU USE RF GENERATORS LESS THAN 1,000 MH

M777 M2-09 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH

M778 M2-10 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION GENERATORS

M779 M3-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING

WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS OR GENERATORS

M780 M3-02 DO YOU INSPECT MOTORS

M781 M3-03 DO YOU CLEAN OR LUBRICATE MOTORS

M782 M3-04 DO YOU OPERATE MOTORS

M783 M3-05 DO YOU REMOVE OR REPLACE COMPLETE MOTORS

M784 M3-06 DO YOU REMOVE OR REPLACE MOTOR PARTS

M785 M3-07 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS

M786 M3-08 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS

M787 M3-09 DO YOU PERFORM ANY TASKS ON FIELD COILS

M788 M3-10 DO YOU PERFORM ANY TASKS ON ARMATURES

M789 M3-11 DO YOU PERFORM ANY TASKS ON ROTORS

M790 M3-12 DO YOU PERFORM ANY TASKS ON BRUSHES

M791 M3-13 DO YOU PERFORM ANY TASKS ON SLIP RINGS

M792 M3-14 DO YOU PERFORM ANY TASKS ON COMMUTATORS

M793 M3-15 DO YOU PERFORM ANY TASKS ON POLE PIECES

M794 M3-16 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OF THE FORCE OR TORQUE CREATED BY A MOTOR

M795 M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR

M796 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS

M797 M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS

M798 M3-20 DO YOU WORK WITH INDUCTION MOTORS

M799 M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS

M800 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS

M801 M3-23 DO YOU INSPECT GENERATORS

M802 M3-24 DO YOU CLEAN OR LUBRICATE GENERATORS

M803 M3-25 DO YOU OPERATE GENERATORS

M804 M3-26 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS

M805 M3-27 DO YOU REMOVE OR REPLACE GENERATOR PARTS

M806 M3-28 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS

M807 M3-29 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS

METER MOVEMENTS, SATURABLE REACTORS, MAGNETIC AMPLIFIERS, AND WAVESHAPING CIRCUITS

M808 M1-01 DO YOU WORK WITH METERS IN YOUR PRESENT JOB

M809 M1-02 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF PERMANENT MAGNETS

M810 M1-03 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF MOVING COILS

M811 M1-04 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS

M812 M1-05 DO YOU READ METER SCALES

M813 M1-06 DO YOU EXTEND THE RANGE OF AMMETERS

M814 M1-07 DO YOU ZERO OHMMETERS

M815 M1-08 DO YOU ZERO AMMETERS

M816 M1-09 DO YOU EXTEND THE RANGE OF VOLTMETERS

M817 M1-10 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)

M818 M2-01 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB

M819 M2-02 DO YOU INSPECT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS

M820 M2-03 DO YOU CLEAN MAGNETIC AMPLIFIERS OR SATURABLE REACTORS

M821 M2-04 DO YOU ADJUST MAGNETIC AMPLIFIERS OR SATURABLE REACTORS

M822 M2-05 DO YOU TROUBLESHOOT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS

M823 M2-06 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS

M824 M2-07 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS

M825 M2-08 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS

M826 M2-09 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE REACTORS

M827 M2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE REACTORS

M828 M2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS

M829 M2-12 DO YOU USE OR REFER TO COERCIVE FORCE IN SATURABLE REACTORS

M830 M2-13 DO YOU USE OR REFER TO RESIDUAL MAGNETISM IN SATURABLE REACTORS

M831 M2-14 DO YOU USE OR REFER TO FLUX DENSITY IN SATURABLE REACTORS

M832 M2-15 DO YOU USE OR REFER TO POINT OF SATURATION IN SATURABLE REACTORS

M833 M2-16 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS

M834 M3-01 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB

M835 M3-02 DO YOU USE OR REFER TO TRANSIENT INTERVALS

M836 M3-03 DO YOU USE OR REFER TO PULSE WIDTH (PW)

M837 M3-04 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)

M838 M3-05 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)

M839 M3-06 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS

M840 M3-07 DO YOU USE OR REFER TO INTEGRATING CIRCUITS

M841 M3-08 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT

M842 M3-09 DO YOU DETERMINE WHETHER AN LN OR RC CIRCUIT IS DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT

M843 M3-10 DO YOU WORK WITH SQUARE WAVE GENERATORS

M844 M3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATORS

C SINGLE SIDEBAND SYSTEMS, PULSE MODULATION
SYSTEMS, AND ANTENNAS

0845 01-01 DO YOU WORK ON SINGLE SIDEBAND SYSTEMS IN YOUR
PRESENT JOB

0846 01-02 DO YOU INSPECT 554 TRANSMIT OR RECEIVE SYSTEMS

0847 01-03 DO YOU CLEAN 558 TRANSMIT OR RECEIVE SYSTEMS

0848 01-04 DO YOU ALIGN 558 TRANSMIT OR RECEIVE SYSTEMS

0849 01-05 DO YOU TROUBLESHOOT TO 558 TRANSMIT OR RECEIVE
SYSTEMS

0850 01-06 DO YOU TROUBLESHOOT TO 558 TRANSMIT OR RECEIVE
SYSTEMS

0851 01-07 DO YOU REMOVE OR REPLACE 558 TRANSMIT OR RECEIVE
SYSTEMS

0852 01-08 DO YOU REMOVE OR REPLACE 558 TRANSMIT OR RECEIVE
SYSTEMS

0853 01-09 DO YOU PERFORM TASKS ON 558 AUDIO AMPLIFIERS

0854 01-10 DO YOU PERFORM TASKS ON 558 BALANCED MODULATORS

0855 01-11 DO YOU PERFORM TASKS ON 558 CARRIER OSCILLATORS

0856 01-12 DO YOU PERFORM TASKS ON 558 LC FILTERS

0857 01-13 DO YOU PERFORM TASKS ON 558 CRYSTAL FILTERS

0858 01-14 DO YOU PERFORM TASKS ON 558 MECHANICAL FILTERS

0859 01-15 DO YOU PERFORM TASKS ON 558 OSCILLATORS

0860 01-16 DO YOU PERFORM TASKS ON 558 MIXERS

0861 01-17 DO YOU PERFORM TASKS ON 558 DRIVERS

0862 01-18 DO YOU PERFORM TASKS ON 558 POWER AMPLIFIERS

0863 01-19 DO YOU PERFORM TASKS ON 558 RF AMPLIFIERS

0864 01-20 DO YOU PERFORM TASKS ON 558 FREQUENCY CONVERTERS

0865 01-21 DO YOU PERFORM TASKS ON 558 IF AMPLIFIERS

0866 01-22 DO YOU PERFORM TASKS ON 558 DEMODULATORS

0867 01-23 DO YOU PERFORM TASKS ON 558 DON'T REMEMBER WHICH 558
SYSTEM STAGES

0868 01-24 DO YOU USE OR REFER TO SELECTIVE FADING

0869 01-25 DO YOU USE OR REFER TO PEAK POWER

0870 01-26 DO YOU USE OR REFER TO FREQUENCY STABILITY

0871 01-27 DO YOU USE OR REFER TO RESPONSE CURVES FOR
BANDWIDTH FILTERS

0872 01-28 DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF 558
TRANSMITTERS

0873 01-29 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH 558
TRANSMITTER SCHEMATIC DIAGRAMS

0874 01-30 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH 558
RECEIVER SCHEMATIC DIAGRAMS

0875 02-01 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR
PRESENT JOB

0876 02-02 DO YOU INSPECT PULSE MODULATION SYSTEMS

0877 02-03 DO YOU CLEAN PULSE MODULATION SYSTEMS

0878 02-04 DO YOU ALIGN PULSE MODULATION SYSTEMS

0879 02-05 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS

0880 02-06 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM
COMPONENTS

0881 02-07 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS

0882 02-08 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM
COMPONENTS

0883 02-09 DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM)
SYSTEMS

0884 02-10 DO YOU WORK ON PULSE-DURATION MODULATION (PDM)
SYSTEMS

0885 02-11 DO YOU WORK ON PULSE-POSITION MODULATION (PPM)
SYSTEMS

0886 02-12 DO YOU WORK ON PULSE-CODE MODULATION (PCM) SYSTEMS

0887 02-13 DO YOU WORK ON LINE PULSING MODULATION SYSTEMS

0888 02-14 DO YOU WORK ON LINE PULSING MODULATION SYSTEMS
MODULATION SYSTEM

0889 02-15 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
POWER SUPPLIES

0890 02-16 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
CHARGING CHOKES AND CHARGING DIODES

0891 02-17 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
PULSE FORMING NETWORKS

0892 02-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TIMERS

0893 02-19 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
SWITCHES SUCH AS GAS THYRATONS

0894 02-20 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
PULSE TRANSFORMERS

0895 02-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER TUBES

0896 02-22 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF
AMPLIFIERS

0897 02-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
FREQUENCY CONVERTERS

0898 02-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
IF AMPLIFIERS

0899 02-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
DETECTORS

0900 02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
VIDEO AMPLIFIERS

0901 02-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
POWER VIDEO AMPLIFIERS

0902 02-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
DON'T REMEMBER WHICH PULSE MODULATION SYSTEM STAGES

0903 02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY
(PRF)

0904 02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)

0905 02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW)

0906 02-32 DO YOU USE OR REFER TO PULSE SHAPE

0907 02-33 DO YOU USE OR REFER TO PEAK POWER

0908 02-34 DO YOU USE OR REFER TO AVERAGE POWER

0909 02-35 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE
RECURRENCE FREQUENCY (PRF)

0910 02-36 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE
RECURRENCE FREQUENCY (PRF)

0911 02-37 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR
PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS
0912 02-38 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE
MODULATION TRANSMITTER SCHEMATIC DIAGRAMS
0913 02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE
MODULATION RECEIVER SCHEMATIC DIAGRAMS
0914 03-01 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB
0915 03-02 DO YOU INSPECT ANTENNAS
0916 03-03 DO YOU CLEAN ANTENNAS
0917 03-04 DO YOU PHYSICALLY ALIGN ANTENNAS
0918 03-05 DO YOU ELECTRICALLY ALIGN ANTENNAS
0919 03-06 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS
0920 03-07 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS
0921 03-08 DO YOU REMOVE OR INSTALL ANTENNAS
0922 03-09 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS
0923 03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING
REPRESENTATIONS OF ELECTRIC FIELD LINES
0924 03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING
REPRESENTATIONS OF MAGNETIC FIELD LINES
0925 03-12 DO YOU DETERMINE THE DIRECTION OF FORCE FOR ANTENNAS
IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS
0926 03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT
INDUCTIVE LOADS TO THE GENERATOR
0927 03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS
WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS
TO THE GENERATOR
0928 03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS
WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS
TO THE GENERATOR
0929 03-16 DO YOU WORK WITH WERTZ ANTENNAS
0930 03-17 DO YOU WORK WITH HARGON ANTENNAS
0931 03-18 DO YOU WORK WITH BROADSIDE ARRAYS
0932 03-19 DO YOU WORK WITH END-FIRE ARRAYS
0933 03-20 DO YOU WORK WITH CAROIID ARRAYS
0934 03-21 DO YOU WORK WITH COLLINER ARRAYS
0935 03-22 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC
INDUCTION FIELDS WHEN WORKING WITH ANTENNAS
0936 03-23 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF
ANTENNAS
0937 03-24 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC
RADIATION FIELDS WHEN WORKING WITH ANTENNAS
0938 03-25 DO YOU MEASURE ELECTROMAGNETIC RADIATION
FIELDS OF ANTENNAS
0939 03-26 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E)
AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION
0940 03-27 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E)
AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD
0941 03-28 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY
POLARIZED
0942 03-29 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY
POLARIZED

0943 03-30 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS
YOU WORK ON
0944 03-31 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS
NECESSARY TO CONSTRUCT, ANTENNAS OF CORRECT LENGTH FOR
SPECIFIC WAVELENGTHS
0945 03-32 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC
ELEMENTS
0946 03-33 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC
ELEMENTS SERVING AS DIRECTORS
0947 03-34 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC
ELEMENTS SERVING AS REFLECTORS
0948 03-35 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN DON'T
REMEMBER WHAT KIND OF ELEMENTS
0949 03-36 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS
0950 03-37 DO YOU WORK ON BIDIRECTIONAL ANTENNAS
0951 03-38 DO YOU WORK ON DON'T REMEMBER THE DIRECTIONALITY
0952 03-39 DO YOU WORK WITH ROTAR ANTENNA ARRAYS

P TRANSMISSION LINES, WAVEGUIDES AND CAVITY
RESONATORS, AND MICROWAVE AMPLIFIERS AND OSCILLATORS

0953 01-01 IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION
LINES (TRANSMISSION LINES ARE DEFINED TO INCLUDE LEADS
BETWEEN RECEIVERS AND ANTENNAS, TELEPHONE LEADS, AS WELL
AS HIGH VOLTAGE POWER LINES, ETC. DO NOT CONSIDER
WAVEGUIDES AS TRANSMISSION LINES
0954 01-02 DO YOU REFER TO OR USE COPPER LOSS OR I²R LOSS IN
TRANSMISSION LINES
0955 01-03 DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY
CURRENTS IN TRANSMISSION LINES
0956 01-04 DO YOU REFER TO OR USE RADIATION LOSS IN TRANSMISSION
LINES
0957 01-05 DO YOU USE OR REFER TO DIELECTRIC LOSS IN
TRANSMISSION LINES
0958 01-06 DO YOU USE OR REFER TO LEAKAGE LOSSES IN TRANSMISSION
LINES
0959 01-07 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES
0960 01-08 DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES
0961 01-09 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES
0962 01-10 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION
LINES
0963 01-11 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION
LINES
0964 01-12 DO YOU TROUBLESHOOT TRANSMISSION LINES
0965 01-13 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN
TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION
(OPEN, SHORTED, CAPACITIVE, INDUCTIVE)
0966 01-14 DO YOU SELECT APPROPRIATE TRANSMISSION LINES
TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS
0967 01-15 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE
TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS
0968 01-16 DO YOU MEASURE STANDING WAVE RATIOS (SWR) OF

TRANSMISSION LINES
P969 P1-17 DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF
TRANSMISSION LINES
P970 P1-18 DO YOU PERFORM THE CALCULATIONS NECESSARY TO
DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH
MATCHING TRANSFORMERS TO MATCH TRANSMISSION LINES TO LOADS
P971 P1-19 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED
TO LOADS USING MATCHING TRANSFORMERS
P972 P1-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED
TO LOADS USING DELTA MATCHING
P973 P1-21 DO YOU SELECT THE TYPE OF TRANSMISSION LINE NEEDED
FOR PARTICULAR JOBS WITHOUT REFERRING TO TECHNICAL DATA
P974 P1-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC
IMPEDANCE (Z₀) OF TRANSMISSION LINES
P975 P1-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z₀) OF
TRANSMISSION LINES
P976 P1-24 DO YOU USE OR REFER TO THE TERM CUTOFF FREQUENCY OF
TRANSMISSION LINES
P977 P1-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K)
OF TRANSMISSION LINES
P978 P1-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION
LINES FOR PARTICULAR FREQUENCIES
P979 P1-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR
ELECTRICAL LENGTH FOR GIVEN FREQUENCIES
P980 P1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE
FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF
TRANSMISSION LINES REMAIN CONSTANT, THE ELECTRICAL LENGTH
INCREASES
P981 P1-29 DO YOU WORK WITH NONRESONANT (PLAT) TRANSMISSION
LINES
P982 P1-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES
P983 P1-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED
TO LOADS USING STUB MATCHING
P984 P2-01 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN
YOUR PRESENT JOB
P985 P2-02 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS
P986 P2-03 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS
P987 P2-04 DO YOU BEND WAVEGUIDES OR CAVITY RESONATORS
P988 P2-05 DO YOU TWIST WAVEGUIDES OR CAVITY RESONATORS
P989 P2-06 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS
P990 P2-07 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS
P991 P2-08 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS
P992 P2-09 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES
P993 P2-10 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS
P994 P2-11 DO YOU REMOVE OR INSTALL DUMMY LOADS
P995 P2-12 DO YOU REMOVE OR INSTALL E BENDS
P996 P2-13 DO YOU REMOVE OR INSTALL H BENDS
P997 P2-14 DO YOU REMOVE OR INSTALL OTHER BENDS
P998 P2-15 DO YOU REMOVE OR INSTALL CHOKES JOINTS
P999 P2-16 DO YOU REMOVE OR INSTALL ROTATING JOINTS
P000 P2-17 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS
P001 P2-18 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS

P002 P2-19 DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES
P003 P2-20 DO YOU USE OR REFER TO "B" WALL OF WAVEGUIDES
P004 P2-21 DO YOU USE OR REFER TO CUTOFF FREQUENCY OF WAVEGUIDES
P005 P2-22 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF
WAVEGUIDES
P006 P2-23 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF
WAVEGUIDES
P007 P2-24 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY
CONDITIONS
P008 P2-25 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY
CONDITIONS
P009 P2-26 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY
CONDITIONS
P010 P2-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST
WAVEGUIDES ARE MADE WITH A "B" WALL SIZE OF .7 WAVELENGTHS
OF THE OPERATING FREQUENCY
P011 P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST "A"
WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35
USED AS AN AVERAGE
P012 P2-29 ARE YOU CONCERNED WITH THE MATERIAL (SUCH AS BRASS)
WHICH WAVEGUIDES ARE MADE OF
P013 P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC
INSTALLATION
P014 P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE
DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR
DIRECTION OF "H" FIELD IN WAVEGUIDES
P015 P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR
"H" LINES IN WAVEGUIDES
P016 P2-33 DO YOU MEASURE THE TIME PHASE OF "E" OR "H" LINES IN
WAVEGUIDES
P017 P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR
"H" LINES IN WAVEGUIDES
P018 P2-35 ARE HIGH POWER PROBES USED ON WAVEGUIDES OR CAVITY
RESONATORS YOU WORK WITH
P019 P2-36 ARE LOW POWER PROBES USED ON WAVEGUIDES OR CAVITY
RESONATORS YOU WORK WITH
P020 P2-37 ARE LOOPS USED ON WAVEGUIDES OR CAVITY RESONATORS
YOU WORK WITH
P021 P2-38 ARE APERTURES (WINDOWS OR IRISES) USED ON WAVEGUIDES
OR CAVITY RESONATORS YOU WORK WITH
P022 P2-39 ARE DONUT REMEMBERS THE KIND OF ENERGY COUPLING USED
ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P023 P2-40 DO YOU DETERMINE WHERE PROBES SHOULD BE MOUNTED IN
WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO
TECHNICAL DATA
P024 P2-41 DO YOU DETERMINE THE POSITIONING OF LOOPS IN
WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO
TECHNICAL DATA
P025 P2-42 DO YOU DETERMINE THE POSITIONING OR SIZE OF APERTURES
IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO
TECHNICAL DATA
P026 P2-43 ARE CHOKES JOINTS USED IN WAVEGUIDES OR CAVITY

RESONATORS YOU WORK WITH
P027 P2-44 ARE ROTATING JOINTS USED IN WAVEGUIDES OR CAVITY
RESONATORS YOU WORK WITH
P028 P2-45 ARE DON'T REMEMBER THE KIND OF JOINTS USED IN
WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P029 P2-46 DO YOU TUNE CAVITY RESONATORS USING CAPACITIVE TUNING
P030 P2-47 DO YOU TUNE CAVITY RESONATORS USING INDUCTIVE TUNING
P031 P2-48 DO YOU TUNE CAVITY RESONATORS USING VOLUME TUNING
P032 P2-49 DO YOU TUNE CAVITY RESONATORS USING DON'T REMEMBER
THE METHOD OF TUNING
P033 P2-50 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY
RESONATORS
P034 P3-01 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS,
TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR
MAGNETRONS
P035 P3-02 DO YOU USE OR REFER TO INTERELECTRODE CAPACITANCE
P036 P3-03 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME
P037 P3-04 DO YOU USE OR REFER TO LEAD INDUCTANCE
P038 P3-05 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL
CIRCUITRY
P039 P3-06 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY
MODULATION
P040 P3-07 DO YOU USE OR REFER TO ELECTRON BUNCHING
P041 P3-08 DO YOU WORK WITH TWO-CAVITY KLYSTRONS
P042 P3-09 DO YOU WORK WITH THREE-CAVITY KLYSTRONS
P043 P3-10 DO YOU WORK WITH REFLEX KLYSTRONS
P044 P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)
P045 P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC
AMPLIFIERS
P046 P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS
P047 P3-14 DO YOU WORK WITH MAGNETRONS
P048 P3-15 DO YOU INSPECT KLYSTRONS OR TWT
P049 P3-16 DO YOU CLEAN KLYSTRONS OR TWT
P050 P3-17 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY
P051 P3-18 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY
P052 P3-19 DO YOU PERFORM OPERATIONAL CHECKS OF KLYSTRONS OR
TWT
P053 P3-20 DO YOU TROUBLESHOOT KLYSTRONS OR TWT
P054 P3-21 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRON OR TWT
P055 P3-22 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS
P056 P3-23 DO YOU INSPECT PARAMETRIC AMPLIFIERS
P057 P3-24 DO YOU CLEAN PARAMETRIC AMPLIFIERS
P058 P3-25 DO YOU ADJUST PARAMETRIC AMPLIFIERS
P059 P3-26 DO YOU TUNE PARAMETRIC AMPLIFIERS
P060 P3-27 DO YOU PERFORM OPERATIONAL CHECKS OF PARAMETRIC
AMPLIFIERS
P061 P3-28 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS
P062 P3-29 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC
AMPLIFIER
P063 P3-30 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER
COMPONENTS
P064 P3-31 DO YOU INSPECT MAGNETRONS
P065 P3-32 DO YOU CLEAN MAGNETRONS
P066 P3-33 DO YOU ADJUST MAGNETRONS
P067 P3-34 DO YOU TUNE MAGNETRONS
P068 P3-35 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS
P069 P3-36 DO YOU TROUBLESHOOT MAGNETRONS
P070 P3-37 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRON
P071 P3-38 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS
P072 P3-39 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS COLLECTOR PLATES
P073 P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS CATCHER CAVITIES
P074 P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS CATCHER GRIDS
P075 P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS FEEDBACK LOOPS
P076 P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS DRIFT SPACES
P077 P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS BUNCHER GRIDS
P078 P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS BUNCHER CAVITIES
P079 P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS CONTROL GRIDS
P080 P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS CATHODES
P081 P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON REFLECTOR (REFLECTOR) PLATES
P082 P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON GRIDS
P083 P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON GRID CAVITY GAPS
P084 P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON RESONANT CAVITIES
P085 P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON MAGNETIC COUPLING LOOPS
P086 P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON FILAMENTS
P087 P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON CATHODES
P088 P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON OUTPUT LEADS
P089 P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TRAVELING-WAVE TUBES FILAMENTS
P090 P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TRAVELING-WAVE TUBES CATHODES
P091 P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TRAVELING-WAVE TUBES MODULATOR GRIDS
P092 P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TRAVELING-WAVE TUBES ANODES
P093 P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TRAVELING-WAVE TUBES HELIXES
P094 P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF

TRAVELING-WAVE TUBES COLLECTORS
P105 P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TRAVELING-WAVE TUBES MAGNETS
P106 P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TRAVELING-WAVE TUBES ATTENUATORS
P107 P3-64 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE
CIRCULATORS
P108 P3-65 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER SIGNAL
CAVITIES
P109 P3-66 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER IDLER
CAVITIES
P110 P3-67 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER VARACTOR
DIODES
P111 P3-68 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE
ISOLATORS
P112 P3-69 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER REVERSE-
BIAS BATTERIES
P113 P3-70 DO YOU PERFORM TASKS ON ANODES
P114 P3-71 DO YOU PERFORM TASKS ON ANODE COOLING PINS
P115 P3-72 DO YOU PERFORM TASKS ON COUPLING LOOPS
P116 P3-73 DO YOU PERFORM TASKS ON HEATER LEADS
P117 P3-74 DO YOU PERFORM TASKS ON RESONANT CAVITIES
P118 P3-75 DO YOU PERFORM TASKS ON CATHODES
P119 P3-76 DO YOU PERFORM TASKS ON MAGNETS

9 REGISTERS, STORAGE DEVICES, AND
DIGITAL TO ANALOG CONVERTERS

Q110 Q1-01 DO YOU USE OR REFER TO STORAGE REGISTERS
Q111 Q1-02 DO YOU USE OR REFER TO SHIFT REGISTERS
Q112 Q1-03 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT
REGISTERS
Q113 Q1-04 DO YOU USE OR REFER TO LOGIC SYMBOLS OF STORAGE
REGISTERS
Q114 Q1-05 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF
SHIFT REGISTERS
Q115 Q1-06 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF
OTHER TYPE OF REGISTERS
Q116 Q1-07 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A
SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES
HAVE PASSED
Q117 Q2-01 DO YOU WORK WITH DIGITAL COUNTERS, REGISTERS, OR
STORAGE DEVICES IN YOUR PRESENT JOB
Q118 Q2-02 DO YOU USE OR REFER TO DELAY LINES
Q119 Q2-03 DO YOU USE OR REFER TO MAGNETIC CORES
Q120 Q2-04 DO YOU USE OR REFER TO MAGNETIC DRUMS
Q121 Q2-05 DO YOU USE OR REFER TO MAGNETIC TAPES
Q122 Q2-06 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OR
MEMORY SYSTEMS
Q123 Q2-07 DO YOU USE OR REFER TO WORD CAPACITY OF MEMORY
SYSTEMS
Q124 Q2-08 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS

Q125 Q2-09 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES
Q126 Q3-01 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-
ANALOG (D/A) CONVERTERS, ANALOG-TO-DIGITAL (A/D)
CONVERTERS, OR BINARY-TO-DECIMAL READOUT CONVERTERS
Q127 Q3-02 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL
DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT
VOLTAGES
Q128 Q3-03 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A)
CONVERTERS IS DETERMINED BY ADDING THE DENOMINATORS OF THE
RESISTORS
Q129 Q3-04 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY
COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS
Q130 Q3-05 DO YOU PERFORM SAMPLE FUNCTION TASKS ON VARIABLE TIME
ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS
Q131 Q3-06 DO YOU PERFORM HOLD FUNCTION TASKS ON VARIABLE TIME
ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS
Q132 Q3-07 DO YOU PERFORM COMPARE FUNCTION TASKS ON VARIABLE
TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS
Q133 Q3-08 DO YOU PERFORM DIGITIZE FUNCTION TASKS ON VARIABLE
TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS
Q134 Q3-09 DO YOU PERFORM DON'T REMEMBER WHICH FUNCTION TASKS
ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER
CIRCUITS
Q135 Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D
CONVERTERS
Q136 Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D
CONVERTERS
Q137 Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D
CONVERTERS
Q138 Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D
CONVERTERS
Q139 Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-
DIGITAL (A/D) CONVERTERS

R PHANTASTONS, SCHMITT TRIGGERS, AND
CABLE FABRICATION

R140 R1-01 DO YOU WORK WITH PHANTASTRON CIRCUITRY IN YOUR
PRESENT JOB
R141 R2-01 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER
CIRCUITS
R142 R2-02 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER
SCHEMATIC DIAGRAMS
R143 R2-03 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS
R144 R3-01 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR
CABLES
R145 R3-02 DO YOU FABRICATE COAXIAL CABLES

S INPUT/OUTPUT DEVICES, PHOTO SENSITIVE
DEVICES, AND SYNCHRONOUS VIBRATIONS

5146 51-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS ON
VISUAL READOUT SYSTEMS
5147 51-02 DO YOU PERFORM ANY TASKS ON NIXIE LIGHTS OR NIXIE
LIGHT DECODER SYSTEMS
5148 51-03 DO YOU ANALYZE NIXIE LIGHT DECODER SYSTEMS USING
BOOLEAN ALGEBRA
5149 52-01 DO YOU WORK WITH PHOTO TUBES IN YOUR PRESENT JOB
5150 53-01 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS
5151 53-02 DO YOU MEASURE EXCITATION FREQUENCIES
5152 53-03 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIPS
5153 53-04 DO YOU USE OR REFER TO EXCITATION FREQUENCIES
5154 53-05 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE
RELATIONSHIPS
5155 53-06 DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER
CIRCUIT OPERATION
5156 53-07 DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER
CIRCUIT OPERATION
5157 53-08 DO YOU USE ERROR SIGNAL DEVICES IN CONJUNCTION WITH
CHOPPER CIRCUIT OPERATION
5158 53-09 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH
CHOPPER CIRCUIT OPERATION
7 INFRARED, LASERS, AND DISPLAY TUBES
7159 71-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH
INFRARED SYSTEMS
7160 71-02 DO YOU INSPECT INFRARED SYSTEMS
7161 71-03 DO YOU CLEAN INFRARED SYSTEMS
7162 71-04 DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS
7163 71-05 DO YOU OPERATE INFRARED SYSTEMS
7164 71-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF INFRARED
SYSTEMS
7165 71-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED
SYSTEMS
7166 71-08 DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM
COMPONENT PARTS
7167 71-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF
INFRARED SYSTEMS
7168 71-10 DO YOU REMOVE OR REPLACE INFRARED SYSTEM
COMPONENT PARTS
7169 71-11 DO YOU USE OR REFER TO FAR REGION
7170 71-12 DO YOU USE OR REFER TO INTERMEDIATE REGION
7171 71-13 DO YOU USE OR REFER TO NEAR REGION
7172 71-14 DO YOU USE OR REFER TO MICRON
7173 71-15 DO YOU USE OR REFER TO GRAY BODIES
7174 71-16 DO YOU USE OR REFER TO BLACK BODIES
7175 71-17 DO YOU USE OR REFER TO ABSORPTION
7176 71-18 DO YOU USE OR REFER TO SCATTERING
7177 71-19 DO YOU USE OR REFER TO ABSOLUTE ZERO
7178 71-20 DO YOU PERFORM TASKS ON BLITZ
7179 71-21 DO YOU PERFORM TASKS ON TARGET BUTTONS
7180 71-22 DO YOU PERFORM TASKS ON EJECTOR LENSES
7181 71-23 DO YOU PERFORM TASKS ON OCULAR LENSES
7182 71-24 DO YOU PERFORM TASKS ON CORRECTION LENSES
7183 71-25 DO YOU PERFORM TASKS ON FILTERS
7184 71-26 DO YOU PERFORM TASKS ON SPHERICAL MIRRORS
7185 71-27 DO YOU PERFORM TASKS ON PLANE MIRRORS
7186 72-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH
LASERS
7187 72-02 DO YOU INSPECT LASER SYSTEMS
7188 72-03 DO YOU CLEAN LASER SYSTEMS
7189 72-04 DO YOU OPERATE LASER SYSTEMS
7190 72-05 DO YOU OPERATE LASER SYSTEMS
7191 72-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF
LASER SYSTEMS
7192 72-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER
SYSTEMS
7193 72-08 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER
SYSTEMS
7194 72-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER
SYSTEMS
7195 72-10 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER
SYSTEMS
7196 72-11 DO YOU USE OR REFER TO ANGSTROMS (A)
7197 72-12 DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS
7198 72-13 DO YOU USE OR REFER TO GROUND STATE
7199 72-14 DO YOU USE OR REFER TO EXCITED STATE
7200 72-15 DO YOU USE OR REFER TO PACKET OF RADIATION
7201 72-16 DO YOU USE OR REFER TO PHOTONS
7202 72-17 DO YOU USE OR REFER TO SPONTANEOUS EMISSION
7203 72-18 DO YOU USE OR REFER TO STIMULATED EMISSION
7204 72-19 DO YOU USE OR REFER TO COHERENCE OR INCOHERENCE
7205 72-20 DO YOU USE OR REFER TO INVERSION LEVEL
7206 72-21 DO YOU USE OR REFER TO MONOCHROMATIC
7207 72-22 DO YOU WORK WITH ACTIVE MATERIALS
7208 72-23 DO YOU WORK WITH PUMPING SOURCES
7209 72-24 DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE)
MIRRORS
7210 72-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE)
MIRRORS
7211 72-26 DO YOU WORK WITH HELICAL FLASHTUBES
7212 72-27 DO YOU WORK WITH RUBY
7213 72-28 DO YOU WORK WITH HELIUM-NEON
7214 72-29 DO YOU WORK WITH HELIUM-NEON
7215 72-30 DO YOU WORK WITH KRYPTON
7216 72-31 DO YOU WORK WITH CESIUM-HELIUM
7217 72-32 DO YOU WORK WITH ARGON
7218 72-33 DO YOU WORK WITH NEOPHYLUM IN GLASS
7219 72-34 DO YOU WORK WITH GALLIUM ARSENIDE
7220 73-01 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES,
SUCH AS DIRECT VIEW STORAGE (DVS) OR MULTIPLE MODE
STORAGE TUBES (MST)
7221 73-02 DO YOU INSPECT DVS OR MST
7222 73-03 DO YOU CLEAN DVS OR MST

T223 T3-04 DO YOU ADJUST OR CALIBRATE DVST OR HMST
T224 T3-05 DO YOU OPERATE SYSTEMS THAT CONTAIN DVST OR HMST
T225 T3-06 DO YOU TROUBLESHOOT DVST OR HMST
CIRCUITS
T226 T3-07 DO YOU REMOVE OR REPLACE DVST OR HMST TUBES FROM
MAJOR ASSEMBLIES OR UNITS
T227 T3-08 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME
THE VARIOUS ELEMENTS OF DVST
T228 T3-09 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME
THE VARIOUS ELEMENTS OF HMST
T229 T3-10 DO YOU PERFORM TASKS ON FLOOD GUNS
T230 T3-11 DO YOU PERFORM TASKS ON WRITE GUNS
T231 T3-12 DO YOU PERFORM TASKS ON ATTACK GUNS
T232 T3-13 DO YOU PERFORM TASKS ON ERASE GUNS
T233 T3-14 DO YOU PERFORM TASKS ON STORAGE GRIDS
U PROGRAMMING, DB AND POWER RATIOS
U234 U1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY PROGRAMMING
TASKS
U235 U1-02 DO YOU USE OR REFER TO DECIMAL SYSTEMS
U236 U1-03 DO YOU USE OR REFER TO PROGRAMS
U237 U1-04 DO YOU USE OR REFER TO HEXIDEcimal SYSTEMS
U238 U1-05 DO YOU USE OR REFER TO 8-4-2-1 SYSTEMS
U239 U1-06 DO YOU USE OR REFER TO FOUR SYSTEMS
U240 U1-07 DO YOU USE OR REFER TO BINARY SYSTEMS
U241 U1-08 DO YOU USE OR REFER TO TIME-SHARING
U242 U1-09 DO YOU USE OR REFER TO DATA WORDS
U243 U1-10 DO YOU USE OR REFER TO ADDRESS WORDS
U244 U1-11 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS
U245 U1-12 DO YOU USE OR REFER TO STEERING/INFORMATION
U246 U1-13 DO YOU USE OR REFER TO INFORMATION WORDS
U247 U1-14 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING
U248 U1-15 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING
U249 U1-16 DO YOU PERFORM TASKS ON INPUT DEVICES
U250 U1-17 DO YOU PERFORM TASKS ON STORAGE DEVICES
U251 U1-18 DO YOU PERFORM TASKS ON ARITHMETIC SECTIONS
U252 U1-19 DO YOU PERFORM TASKS ON CONTROL SECTIONS
U253 U1-20 DO YOU PERFORM TASKS ON OUTPUT DEVICES
U254 U1-21 DO YOU PERFORM TASKS ON POWER SUPPLIES
U255 U2-01 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND
ATTENUATION
U256 U2-02 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN
DECIBELS
U257 U2-03 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN
DECIBELS

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report summarizes the results of the administration of the Electronics Principles survey to airmen assigned to Integrated Avionic Systems specialties including 326X2A, Inertial/Bomb Navigation, Fire/Weapons Control, Digital Computers, and Multi-sensor Displays; 326X2B, Flight Control, Flight Data Recorders, and Integrated/Mechanical Instrument Duties; and the 326X2C, Communications, Navigation, and ECM Systems. The report gives a detailed listing of the technical tasks and knowledge needed to perform the jobs within the specialty of career ladder. <i>CONTINUED</i>		

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↖ This specialty has the following functions:

Analyzes malfunctions, and calibrates and performs maintenance on avionics aerospace ground equipment using calibration standards. Identifies and isolates malfunctions of avionics aerospace ground equipment. Verifies, calibrates, modifies, and repairs avionics aerospace ground equipment. Inspects avionics aerospace ground equipment. Supervises avionics aerospace ground equipment personnel.

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